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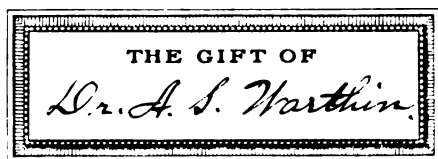
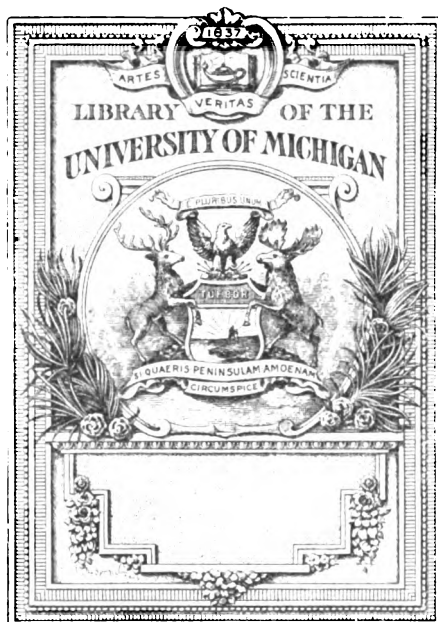
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Journal of the outdoor life

National Tuberculosis Association



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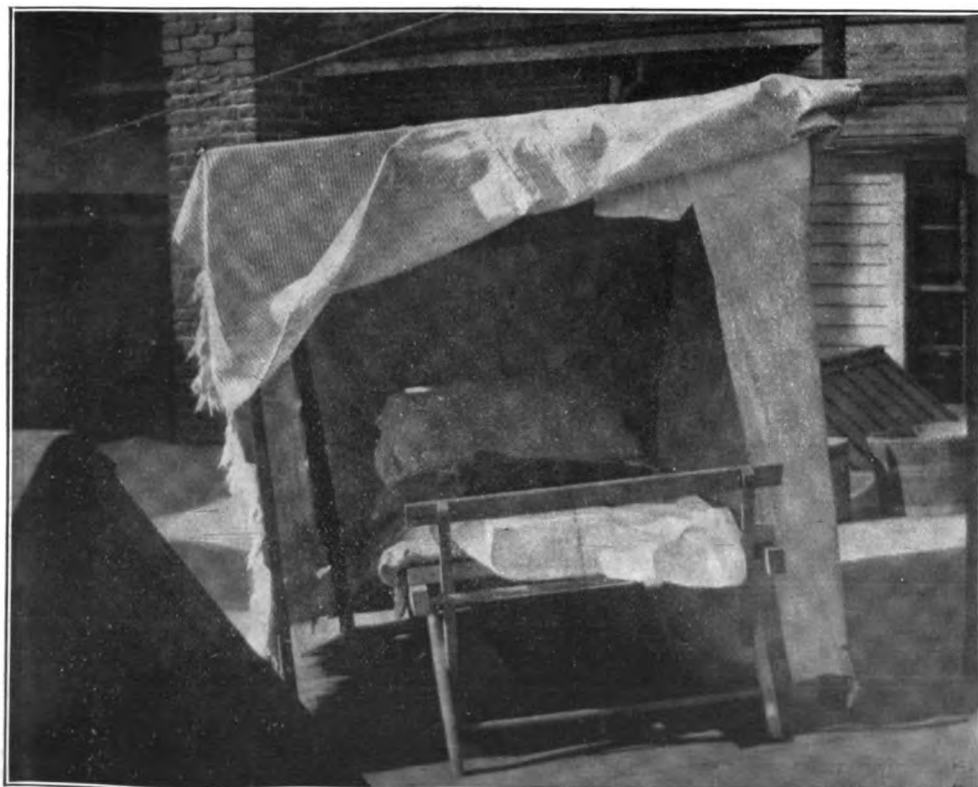
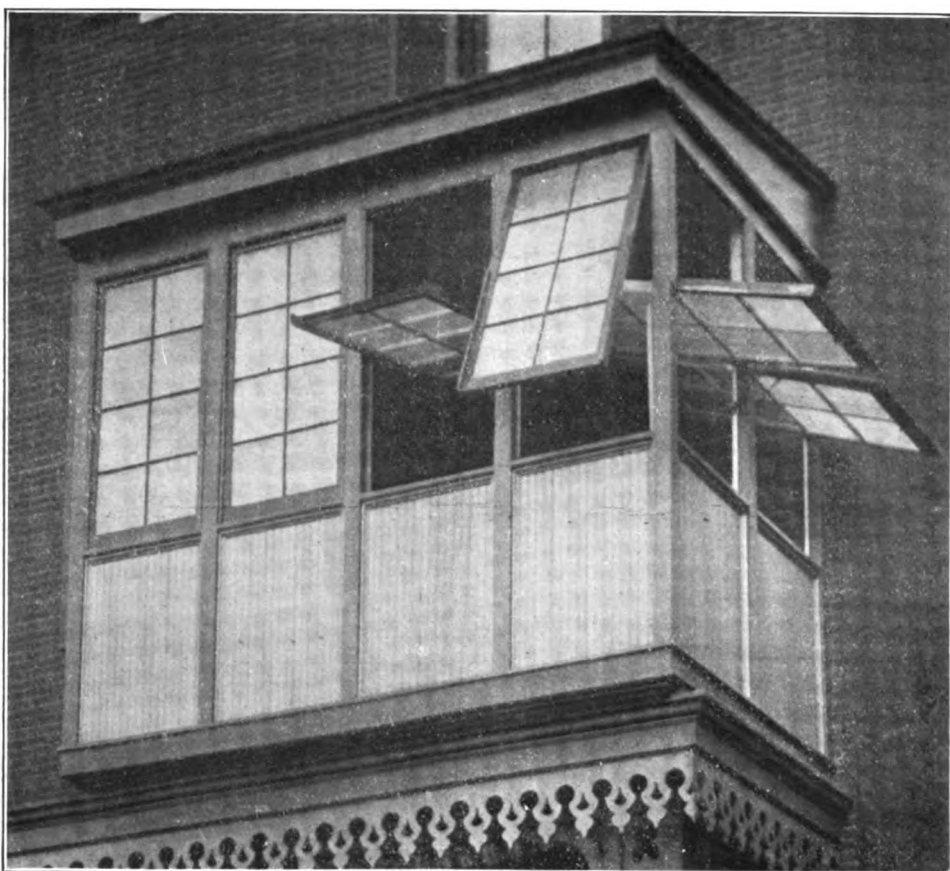
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TWO SUGGESTIONS FOR SHELTER IN HOME TREATMENT

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WHAT EVERYONE SHOULD KNOW ABOUT TUBERCULOSIS

USEFUL FACTS FOR PATIENTS AND FOR THOSE LIVING WITH THEM

BY CHAS L MINOR, M. D., ASHEVILLE, N. C.

The following article was written for a State Association for the Prevention of Tuberculosis for circulation through the State in a campaign against the disease. Being for popular use and reaching people of various classes down to the poorest and most ignorant, the advice given had to be as simple and the measures recommended as easy and cheap in application as possible, but I believe that it nevertheless touches on all essential points.

It is of course to be doubted if any advice will be useful to the very ignorant or to the criminal poor, but the people one wishes to reach especially are the great working class, ignorant of hygienic rules but ready and willing to learn if anyone will teach them and it is especially for this class that this has been written.

However, it is hoped that it may be useful to any sufferer with the disease, for experience shows that even those of the most fortunate classes need hygienic instruction sadly, and, after all, the treatment of tuberculosis is in the final analysis largely the training of people in proper methods of life. It is to be hoped that this article will in this way be useful.

I. Do You Value Your Health?

If so, what follows will interest you; read it through carefully. IT WILL PAY.

II. Why Are People Afraid of Tuberculosis, or Consumption?

Because every third person between fifteen and sixty dies of it, or every fourth person between twenty and fifty, or, in other figures, it kills about one in seven of all people who die at any age; also because it disables, and renders useless and helpless, those who have it, for a long time before they die, and often beggars their families.

III. Why Should You Bother Yourself About It if You Have Not Got It?

Because you or some of your family may develop it at any time, and by knowing something about it you can greatly lessen the chance of getting it, or, if you do get it, can lessen its dangers to you and your children.

A much less selfish reason is that every man and woman worthy of the name wants to help, not only himself and his loved ones, but every suffering human being; and what this article will teach you will enable you to do that.

IV. What Is Tuberculosis?

It is a disease caused by the growth in your lungs, or less commonly in other parts of your body, of a minute fungus, plant, or germ, called the tubercle bacillus. This germ kills the tissues around it and slowly or rapidly, spreads through the whole lung, till finally it kills the person in whom it grows. It is now known that the germ gets into the body of almost every one, but, since it does not grow easily in the human body, many of these germs are killed at once by the tissues, while others lie there inactive for a long time and do not give rise to the real disease until by some chance the resistance of the body is lowered enough for it to begin to grow, the

thoroughly healthy body not being a favorable growing place. Hence overwork, damp, dark, dirty homes or work places, bad or scanty food, late hours, certain sicknesses, such as grippe, measles, whooping-cough, pneumonia or typhoid fever and especially drinking or dissipation weaken the body and give the germ the opportunity it is looking for, and enable it to develop. In bodies thus weakened it can flourish and, if they are not strengthened in time by proper living, proper food, proper care, fresh air and rest it will advance, usually slowly and gradually so that it takes from two to ten years to kill the patient, more rarely rapidly so that in the galloping form it kills in from six weeks to a year.

Thus you see the disease is really a battle between the disease germs which have gotten into the body and the cells which make up the body. If these cells are well nourished and cared for they will win, and will shut in and finally kill the germ; if not, the germ will by degrees kill them and bring about the patient's death.

While, however, it kills many people, the examination of the lungs of people who have been apparently healthy, and have died of some other cause show that a very much larger number of people than ever die of it have had active trouble at some time in their lives without knowing it, the scars of the old healed disease being found in such cases. Thus it is not like typhoid fever, or smallpox, or measles, or scarlet fever, which are easily taken if you come into contact with those who have the disease and which quickly infect the people who are exposed to them, but is caught much less easily takes a long time to develop after it is caught, and, if one lives wisely can be prevented from developing, or cured, if it has not gone too far, in a great many cases. Therefore it is not necessary to despair and give up hope if you or those you love have caught this disease; but it does demand an immediate improvement of your ways of life and an improvement of your surroundings, so as to strengthen your body to the utmost that it may be able to shut in, wall up and conquer this trouble.

V. How and When Do People Take This Disease?

It is probably caught in most cases in childhood, and lies quiet in the body for a longer or shorter time until the conditions are favor-

able for its development; but it can be gotten at any time or at any age. Since the germ can and does so often lie quiet in the body for many years before it develops and is discovered, it is usually difficult and impossible to say just when or under what circumstances you became infected. It should be remembered that **IT IS ALMOST ALWAYS A HOUSE OR INDOOR INFECTION**, and that it is rarely or never caught outdoors, where the sunlight, which is the best of disinfectants, quickly kills the germ. Thus the real and great danger is from dark, damp, dirty or ill-ventilated sleeping and living rooms, corridors, houses, workshops factories or stores, which have become infected with the germ by the spit of careless consumptives. The germ is found in millions in this spit from very early in the disease. *It is through the spit of consumptives almost alone that it reaches people, and if we could collect and destroy all the spit of such patients we could almost wipe out the disease.* Fortunately, when people spit outdoors it is not quite so dangerous, since sooner or later the sunlight will destroy the germ; but when they spit indoors, as so many do, the germ can remain alive and active for a long time, as the sun cannot get at it and kill it; hence people who spit in this careless way are a terrible danger to all who live with them, or who stay in the places where they live or work. Many people who do not know they have consumption, but only think they have got a bad cough, have the disease already and are bringing up the germs in their spit. Therefore everyone who spits or has a cough should be just as careful about his spitting as if he knew he had the disease, for if he spits on the floor or walls it will be ground underfoot and blown around by the air into other people's mouths, whence it reaches the lungs. Even if he spits in a spittoon the flies will get at his spit and carry it on their feet to his own food so as to reinfect him, or to other people's food so as to infect them.

Infected rooms are the chief cause of the infection of children, who play on the floors, get their hands dirty with infected dust, and then put their dirty fingers into their mouths,

Again, when the floors are swept the clouds of dust, containing the dried and powdered spit, carry the germ directly into the lungs; hence *the dry sweeping of rooms should not be allowed.*

The dark corridors of many houses also make excellent places where the germs can stay for a long time, and many people who would not spit on the floor of a bedroom will do so on the floor of a corridor. If every one who reads this will try to see to it that his home is kept strictly clean, that as much sunlight as possible is admitted to it, and that no one is allowed to spit there carelessly, he will do much to lessen his chance of catching the disease.

But outside of the home there is much danger in shops, factories and mills. Too many clerks and workmen spit on the floors of their work places, and since many of these, often without knowing it, have the disease, when their spit dries and is ground underfoot they infect their fellow-workmen, and every year thousands of American laborers are killed in this way.

If only our labor unions knew the great danger that their members ran from the careless spitting habit of sick workmen they would insist that *every one who spits in a workshop must use a spittoon* containing water with a tablespoon of carbolic acid to the pint, and they would see to it that any one who persistently violated this rule should be dismissed from the union, and in this way they would soon greatly lessen the number of their members who get this disease.

Infection may sometimes come from a patient spraying out and scattering around fine drops of moist spit when he coughs, and thus infecting other people; but this is a much less common cause than the other and could be entirely avoided if every one who coughs would always cover his mouth with a handkerchief.

Another way the germ can be taken into the body is in uncooked cow's milk, since cows frequently have this disease and the germ can get into milk, sometimes in large numbers. While this is not as common a source of infection as that through the tonsils, or by breathing it into the lungs, it is quite a common cause in little children who drink much cow's milk. This carries the germ into the bowels, and, by passing through their walls, into the system. Therefore, unless one is sure that one's cow is free of tuberculosis (which can be told by a test which a good veterinary doctor can give), and especially if the cow, whose milk you use, is thin, has a bad coat, or coughs, the safe thing is to

boil all the milk used by the children of the household. which makes any milk perfectly safe.

Another possible but less common cause of infection is from kissing consumptives on their mouths, since their lips are apt to be wet with infectious spit, and all consumptives must be very careful to wash their mouths and their hands often, as they frequently get them dirty with spit, and thus can hand the germ on to other people. However the disease is caught, *it does not develop at once*, but lies in the body anywhere from one to twenty years after it enters, though during this time it may at times cause some symptoms which only a doctor would recognize, and which pass off soon, so that a patient pays no attention to them. Several such manifestations may precede the final breaking-out of the disease.

From what has been said it is plain that if all people who have any spit would destroy it carefully, cover their mouths when they cough, refrain from kissing, and keep their hands clean, and if all milk, for children at least, was boiled before use or came from perfectly healthy cows which had been tested, it would not be long before we got rid of the trouble entirely.

VI. How Can You and Your Family Keep from Getting the Disease?

First, by seeing that you and your children do not move into any room or house or work place in which a consumptive, or a person with a chronic cough, has lived or worked or died, until it has been carefully disinfected by the board of health or your doctor. Any room or house can be made perfectly safe, without very much trouble:

First, by wiping down all the walls and ceilings carefully, then by scrubbing all the woodwork and the floors with hot water in which is put two tablespoonfuls of carbolic acid to every quart, then by hanging up by two corners, in each room, a sheet which is thoroughly wet with at least a quart of 40 per cent. formaldehyde solution* (which can be gotten cheaply at every druggists), after first shutting up all the windows, doors and fireplaces, and chinking up all cracks and keeping the room shut for twenty-four hours.

* This is not the only or the absolutely best way, but it is cheap and easy to apply and safe for general use by the public.

Second, by seeing that no one in your house, or in the place where you work, whether they think themselves well or ill, *is ever allowed to spit on the floor or anywhere their spit cannot be burned up or thrown down the sewer.*

Third. By seeing that your house or workplace has windows which open outdoors, and not just on some narrow air shaft, in every room, and that no windowless rooms are allowed, and that your rooms and corridors are kept as clean as scrubbing-brush, hot water, open windows and sunlight can make them.

Fourth. By keeping the bodies of yourself and your family as strong, healthy and resistant as possible by good, properly cooked, even if simple, plain food; by frequent bathing, by sensible dressing, by avoiding late hours dissipation, drinking and unduly long hours of work, and by spending all your rest hours as far as possible out of doors and in healthy amusements.

Fifth. By never cramping your lungs by too tight clothes, or by stooped shoulders, or by stopped-up noses, which prevent proper air getting to your lungs.

Sixth. By never neglecting any cold that lasts over two weeks, for most such colds will prove to be tuberculosis.

Seventh. By keeping your children out of sickrooms, especially of people who have coughs, because children catch the disease most easily. Also, if you or they have stooped, hollow, badly developed chests, by practicing regular deep breathing, keeping your shoulders back and doing easy gymnastics to broaden your chests.

VII. If You Have Caught the Disease, How Can You Find It Out Soon Enough to Cure It?

Remember that this disease can be cured in the majority of cases *if it is discovered early*, while, if it is not found out until it has advanced, it is very hard to cure it at all.

In early cases proper food, rest in the open air day and night, clean surrounding, and, if at all possible the help of an intelligent doctor, will do wonders. Since if it is to be cured, it must be found out early, it is very important to understand the early symptoms which warn us of its presence.

The disease can begin in different ways. The most common early symptom is a slight

cough—usually, but not always, in the morning—which will not yield to treatment, and *every cough that lasts more than two weeks should be regarded as suspicious.* Often, however, before a cough appears there are other symptoms which can warn us, and of these none is more useful than a sense of tiredness and exhaustion and weariness coming on without any good reason. This is often supposed to be simply laziness, or it is ascribed to malaria or to nervous prostration. It usually comes on in the afternoon between 2 and 6 o'clock, and may be accompanied by flushed cheeks, bright eyes and feverishness.

Just as with a cough, so persistent weariness should cause you to consult a good doctor. A long-continued hoarseness that does not leave you is also suspicious.

Another important symptom of the trouble is a steady and unexplained loss of weight and appetite.

Usually after a little while some spitting is apt to begin, and if it is examined under the microscope by the doctor he may be able to find a germ; but if he does not find it, *this does not prove that the disease is not there*, for the germ can often be absent from the spit for some time.

All or any of these symptoms are suspicious and should cause you to consult a careful doctor; but if you cannot get to a doctor you are pretty safe in taking for granted that a patient who has a little cough, with loss of weight, appetite and strength, with probably some tiredness, and some slight sweating about the neck or chest at night, is beginning with the disease, and fever chills and sweats are just as often caused by tuberculosis as by malaria ("chills and fever").

Sometimes the trouble begins with a slight blood spitting, which may not be followed for a long time by the development of real trouble and where the doctor can find no change in the lungs; but such blood spitting is practically always a sign of the disease.

Even if a doctor cannot find the signs of the disease when some of these symptoms appear—and it is very often impossible to do so at this time—*it is much safer and wiser not to wait until he can find them*, which in some cases may be a matter of months, which may make it too late to do any good, but at once to so alter your methods of living, to increase your fresh air, improve your food, lengthen your hours of sleep, and, if at all

possible, lessen your hours of work, so as to strengthen your body to the point where it can throw off the beginning disease. In this way you will often be able to check it before you can be quite sure as to whether you have had it or not; but he who would wait until he is quite sure before trying to treat it will throw away his best chance of getting well; for when there is hollow cough, abundant spitting, high fever, sweats, flushed cheeks and great loss of weight to make the case certain, it is usually very much harder to get a cure.

VIII. If You Have Gotten the Disease, Can You Get Well, and How?

In any given case a sensible doctor can usually tell you whether there is any chance of getting well, but it is worth remembering that *quite a number of very bad and apparently hopeless cases do at times recover* when it seemed impossible for them to do so; thus, however bad the outlook, it is sensible not to give up hope, but to start right in to make the bravest fight you can.

In any case your chance of getting well depends largely on the earliness of the discovery of the trouble and the grit and the courage of the patient; and a brave, determined patient with bad trouble often stands a better chance of recovery than a silly, weak-willed one with much less trouble.

Tuberculosis of the lungs can appear in many forms, most tending to be chronic, slow and long drawn out, and of these a large number are curable; a few are acute, rapid, galloping, and these are usually hopeless from the start; while there are some intermediate cases, which look very bad in the beginning, but with great pains and care may finally be cured. Of light or medium cases, discovered early and which can get good conditions of life and treatment, the majority can be cured so as to allow a return to suitable work and to self-support, provided there is a proper care of the future life and avoidance of harmful influences. Even in more severe and advanced cases, with much trouble in the lungs, a fair degree of health may often be regained, so that *one need never lose hope*.

As to the length of time it will take to get well, this varies according to the severity of the case from six months in the most favorable cases to from two to three years in the most obstinate ones. In any case, we know that a good number of the cases can be and are

cured; and since some very severe cases recover, it is always right to hope and strive to get well, even if you seem very sick.

Getting well does not mean the taking of a lot of medicine; *there is no medicine which by itself cures tuberculosis* while the patient keeps on living the old kind of life. *Nothing has done more harm in this disease than the habit of taking patent medicines* which make lying claims to cure the trouble, when in fact they only stop the cough and pain by opiates in them, and make the death easier, but not any the less sure or quick.

Getting well demands a change and improvement of one's way of living, so as to let the body regain its strength and cure itself. If you have money enough to go away to a favorable climate and get there good board, care and accommodations, it will be a great help to you; but *change of climate is not the first or most important thing*, and, unless you have money enough to get in the climatic resort as good or better conditions than you have at home, you had much better stay at home and spend what money you have in getting the best possible conditions you can there.

First, then, try to get a bright, sunny room with at least two windows and looking to the south; and if your town is dusty, it is better to be in the top floor of the building, especially if you can get a roof that you can sit out on.

Second. Try to get the guidance of a good doctor, not so much to give you medicine as to teach you how to live, how to arrange your life, how to ventilate your room properly, how to get the proper amount of rest, *how to avoid over-exercise, which kills many people*, how to live outdoors as much of the twenty-four hours as possible, and how to choose and fix your food properly.

But *if there is no doctor that you can get, don't give up hope*. The cure consists of plenty of good, simple food, constant fresh air during the night as well as during the day, constant rest in the fresh air until there is no fever, and then carefully and gradually increased short walks, proper care and washing of your body, and proper clothing, and, finally, *a determination to get well and to be cheerful in spite of everything*, and only to look on the bright side of things, however hard your circumstances may be.

Get the simplest and best food you can,

with much good meat, which should be roasted or broiled, not fried or boiled, and with as much fresh milk, eggs and butter as you can afford. Take a glass of milk and an egg at each meal and one halfway between meals.

If you can stop your work for six months do so, and begin a rest cure at home on your porch, or roof, or in your backyard, if you can, or, if not in your room with every window wide open and yourself well wrapped up in cold weather.

If however, your case is only just beginning, it is at times, though with great difficulty, possible to get well while continuing at your work, by eating something between meals and by taking an hour for rest and food at the meal time; but if you do this *you must be very careful not to infect your fellow-workmen.*

Keep your body clean by a daily bath and in winter wear sufficiently warm clothes, but do not bundle up too warmly or muffle your throat up in shawls. Have your room kept as clean as possible with soap and water, and keep all blinds and window-shades wide open so as to let in all the air and sunlight you can to help you fight the disease; and remember it is better to let sun fade your carpets and pictures than to keep these unfaded and kill yourself.

If you are properly wrapped up, all the windows can be opened day and night, in winter, as well as in summer, night air being just as good and just as necessary as day air. But if you are not used to this, you should go about it gradually, opening each window an inch further each day, until they are all as wide open as they can be, half down from the top and half up from the bottom.

Get, if you possibly can afford it, an easy reclining chair with some means of keeping your legs up off of the ground, and spend your whole day out of doors, or, when it rains or on every bitter, windy, or rainy days, spend it in your room with all the windows open.

At first **AVOID ALL EXERCISE**, *for many more consumptives are killed by over-exercising than are ever hurt by too much rest.* Keep this up until you can notice no feverishness in the afternoon and until you are gaining weight; and then when you begin to exercise, let it be not more than two or three minutes, slowly increasing it by a few

minutes each day, and stopping it at once if it brings back your fever or if it makes you tired or short of breath.

If you have to sleep in a room instead of on a porch, keep all the windows open, have plenty of good bedclothes, and keep your head near one of the windows.

Never swallow your spit under any circumstances, because in this way you can infect your bowels and get a hopeless and terrible form of the disease. If you are hoarse or your throat is sore, talk not at all, or as little as possible, and, under any circumstances, do not smoke and let nobody smoke in your room and avoid all smoky and dusty places.

By living in this way people all over this country in unfavorable climates have been cured and are being cured every year of this disease, and there is no reason why you should not get well, too. Don't suppose, however, that you are well as soon as most of your symptoms stop. *The disease is still present and active long after you can notice any signs of it*, and if you get careless or forgetful and do imprudent things it will surely come back on you; therefore *keep up the cure for a year at least after you feel well, and for the rest of your life live carefully*, remembering what you have escaped. If you fight it out bravely on these lines, drive away the blue devils, and insist on being cheerful, you will be surprised to find how well you will do, and how you will gain weight and strength and appetite and lose your symptoms.

IX. If You or Your Family or Someone in Your House Have the Disease, What Must Be Done to Keep..

It from Spreading to Others?

First and foremost, remember that if proper care is taken in the directions indicated *there need be no danger at all to you from a consumptive living in the house with you.*

See that the patient always spits into a rag or a piece of paper, which is to be burned up immediately, or to be put into a box protected from flies and burned up later. If you can afford it, use a regular sputum box with tin frame and paper containers, which can be gotten at any up-to-date drug store for about 25 cents. Be careful that the patient does not soil his hands from these papers and *see that he washes his hands and mouth often.* If you must use a spittoon, put into it a quart

of water and two tablespoonfuls of pure carbolic acid (poison) each morning and empty it down the water closet next morning, or, if there is no water closet, bury it in a hole far from the house. Let the patient cover his mouth whenever he coughs with a rag and let these rags be burned *after one use*. If by accident any spit should get on the floor, on clothes, or on furniture, pour over it at once a mixture of a tablespoonful of carbolic acid (poison) in a pint of water and let it soak for two hours and then clean it up carefully.

Let the patient's cup, glass, plate, spoon, knife and fork be scalded in hot water and washing soda and wiped dry with a towel kept for that purpose, after each meal. See that his napkins, towels, handkerchiefs, pillowcases and sheets are boiled or soaked in carbolic water before going to the wash.

Avoid as far as possible raising dust by sweeping, as this scatters germs around, and use wet tea leaves or wet sawdust on the floor to prevent this dust.

If possible, *keep all flies out of the sick room*, or, in any case, *never let them get at the patient's spit*, either in spittoons or on papers or handkerchiefs, or on the hands or lips. Keep the beard and mustache shaved close, especially if the patient spits much, for they soon get soiled with spit.

Finally, remember that *the best preventive for those around is a healthy body and a cheerful mind*, so let every one who lives with a consumptive keep as strong, well and cheerful as possible.

In this way *there need be absolutely no danger to any one living with him*, nor need he be in danger of reinfecting himself, and it is entirely unnecessary and cruel to treat these patients, as is so often done, as though they had smallpox.

Finally, remember that your getting well, however good your doctor is, depends chiefly on yourself, on YOUR common sense, YOUR INTELLIGENCE, YOUR determination. Make up your mind you WILL get well; be willing to deny yourself any pleasure, however much you love it, if it is harmful; be ready to do anything, however tedious or disagreeable, if it is helpful. If you are sick, fight bravely to be cheerful and bright; if you are well and living with a sick person, be sensible and do not cruelly make them miserable by your fear of them, but rather render them harmless to you by carrying out the above rules.

In this way we will soon see each year many men, women and children saved and returned to useful activity who under the present carelessness in these matters are doomed to death.

THE NORTH POLE AS A HEALTH RESORT*

Daily Paper.

O! let us away to the land of the North,
Where they live upon blubber and fat,
Where the air
Is so rare,
And the ether so blue;
Where the bear
Has its lair,
And the Eskimo too;
And we'll each of us rear up a cosy igloo
And sleep through the winter in that.
The doctor who sends us down South for our health

*That Greenland and the Arctic regions will become a summer resort in time is Commander Peary's confident belief, and Dr. Goodsell, physician of the expedition, asserted that the dry air and constant sunlight of the summer was a fine cure for tuberculosis.—

And deluges our system with doses,
He may fail
When we ail.
So we'll heed him no more;
He may rail
When we sail,
For Greenland's cold shore,
But we'll each of us answer him back with a
 roar:
"It's the new cure for tuberculosis."
—Harri, in *Toronto Saturday Night*.

NOT EXACTLY

"There! You have a black eye, and your nose is bruised, and your coat is torn to bits," said mamma, as her youngest appeared at the door. "How many times have I told you not to play with that bad Jenkins boy?"

"Now look here, mother," said Bobby, "do I look as if we'd been playing?"

A BIRDSEYE VIEW OF THE ANTI-TUBERCULOSIS CAMPAIGN

TREMENDOUS ACTIVITY OF THE YEAR JUST PASSED
WILL BE DOUBLED IN 1910

BY PHIL P. JACOBS,

ASSISTANT SECRETARY, NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

Some idea of the magnitude of the campaign against tuberculosis in the United States may be gained from statistics recently gathered by the National Association for the Study and Prevention of Tuberculosis. "Millions" is the only word that really tells the story.

For the purpose of taking a survey of the whole field of anti-tuberculosis work, the National Association for the Study and Prevention of Tuberculosis sent out in the early part of November a letter and questionnaire to every secretary of an anti-tuberculosis association, every physician in charge of a sanatorium, hospital or dispensary, and every health officer in cities with a population of 30,000 and over. More than 50 per cent. of these different agencies responded by giving accounts of their work during the year 1909. In many cases the answers were indefinite, and the writer was obliged to fill in the gap from his knowledge of the work in each locality. Where no reports were received the data on file in the office of the association was used as a basis for estimation, which, together with the averages and totals for the figures at hand, have produced the results discussed in this article.

It should be noted at the outset that, while approximately only 60 per cent. of the different agencies doing anti-tuberculosis work furnished reports, the remaining 40 per cent. represented the associations and institutions where little or no work has been done. Probably the reports received indicate more nearly 80 per cent. of the actual work done, thus leaving only 20 per cent. to be estimated. The results obtained are, therefore, as exact as one would probably be able to get from a field so wide as the one covered by this report.

Information concerning work done by state bodies had been solicited earlier but, because

of the fact that most of the state work is credited to some state sanatorium or dispensary, no separate detailed study of state work is included, although mention will be made, when necessary, particularly in regard to provisions made for next year.

This report deals mainly, then, with the work done by anti-tuberculosis associations, tuberculosis clinics and dispensaries, tuberculosis hospitals, sanatoria and day-camps, and the special anti-tuberculosis work of municipal departments of health.

Taking up the work done by the more than 330 anti-tuberculosis associations and committees in existence at the end of the year, it should be noted that only 231 of them were established up to January 1, 1909. Of the 100 started during the year, not more than about fifteen have done a large amount of work that could be tabulated. The reports of work of these different organizations give a total membership of 9,817, or an average membership for 300 associations of 266. This membership is perhaps raised unduly by the report of some of the factory associations of Connecticut, where every employee is really a member. But membership is, after all, a poor index of work done, for some of the most active organizations are small working committees such, for instance, as those in New York City, New York State, Paterson, N. J., or Brooklyn.

A better key to the work done by associations is the number of public meetings held and the number of people who attended them. Thus, over 6,000 meetings were reported with an aggregate attendance of 3,521,185, or an average attendance of 583. Possibly the amount of literature distributed would show better what has been done but here the fact that few associations keep accurate records

makes the total somewhat questionable. The error is, however, considerably in deficiency rather than in excess. It seems to the writer that the total of 8,399,629 should be more than 10,000,000 pieces, but granting the lower figure, it will be seen that on an average over 300 associations each distributed nearly 28,000 pieces of literature. The value of the association as an educational medium is here clearly demonstrated.

The associations reported only 152 nurses in their employ, but in many cases the local visiting nurse associations furnish nurses, so that the actual number of tuberculosis nurses working under private agencies would be much larger.

Thirty-nine tuberculosis exhibits are owned and operated by local and state associations, in addition to those operated by state and local boards of health, and the National Association.

The best indices of the real work done by associations are the number of patients cared for or assisted and the amount expended in association work. During the year 16,998 patients were aided in some way by associations for the prevention of tuberculosis. The total expenditures by associations for tuberculosis work amounted to \$975,889.56, an average of \$3,253 each. This sum does not include, for the most part, expenditures by associations for the conduct of sanatoria day camps or hospitals, nor, except in a few cases, the expenditures for dispensaries operated by associations. These are given under their respective heads.

Reports covering nearly 80 per cent. of the bed capacity of the country in use on June 1, 1909, were received, which together with former printed records made it possible to gain a more accurate knowledge of the work done by the sanatoria and hospitals than about that of any other part of the anti-tuberculosis field. The reports do not cover the special hospital work done for the tuberculous in hospitals for the insane and in penal institutions, but take into consideration all day camps, tuberculosis schools, sanatoria and hospitals where tuberculosis patients are treated. Owing, also to the character of the work, it has been possible here to obtain better results.

The capacity of the institutions considered aggregated 14,208 beds. Of this number, almost 60 per cent. were for incipient cases,

15 per cent. for moderately advanced, and the remaining 25 per cent. for advanced cases.

The total number of patients treated in these 14,000 hospital beds was 38,758, or 2.7 patients for each bed in use during the year. The average number of beds in each institution is 47. These figures seem to indicate two things: First, that our institutions for the treatment of tuberculosis are changing in size and character. The average capacity of the tuberculosis sanatoria in existence on January 1, 1905, was seventy-nine beds. While the number of institutions since that date has almost tripled, the number of beds has little more than doubled. A second fact which our figures indicate is that, while the small, local hospital is becoming more and more popular, the demand for institutional care is also increasing in force, with the result that our patients are not being kept in institutions as long as they ought to be. This fact seems born out by the number of hospital days' treatment given, which aggregated 3,931,257, or an average of 101 days per patient, slightly more than three months. Probably the inclusion of day camp statistics has helped to give a relatively large number of patients treated for each bed, with a short stay in the institution. Other explanations may suggest themselves. We have tried only to indicate the most plausible ones.

The cost of treatment in our sanatoria and hospitals was \$5,292,289.77, or a *per capita per diem* cost of treatment of \$1.346. This figure includes the cost of all sanatorium expenditures in 1909, even those for new buildings. If the cost of maintenance only were included, the per capita per diem cost might be decreased somewhat. On the other hand, the above total cost of sanatorium expenditures does not differentiate between the small temporary day camp with its relatively low cost of maintenance, or the annex to the municipal hospital, which likewise shows a low cost, and the ordinary independent hospital or sanatorium unit. These facts together with the common and pernicious tendency of understating the cost and overstating the number of hospital days will tend to reduce the per capita per diem figure. Consequently, \$1.346 seems to us to represent about what it costs on an average to care for tuberculosis patients throughout the country.

If the number of patients who visited the tuberculosis dispensaries of the country in the

past year, 61,586, may be used as a standard, the value of this kind of institution would seem to be established beyond question. About 250 dispensaries were operated on an average during the year, giving thus to each, about 246 patients. The 61,000 patients visited the dispensary nearly ten times each or 606,741 visits in all. Nearly 350 nurses are employed by the dispensaries, which means that the number of visits to the homes by these nurses would foot up in the millions.

The expenditures of the dispensaries were \$640,474.64. This figure includes the necessary relief of milk and eggs or other necessities given to needy cases. According to this figure it costs about \$2,500 a year to run a dispensary.

The fact that a large number of municipalities do not keep their records in such a manner that they can distinguish what part of their work has been devoted to the prevention of tuberculosis, makes the figures derived from this source less exact than from any other agency studied. On the other hand, conservatism has marked the recording of results, and, the totals must not therefore be considered as of no value, but should be looked at rather as showing less than has been done by municipal bodies. In listing the expenditures, it has been necessary in several cases to include those made for the construction or operation of municipal hospitals. Care has been taken, however, not to duplicate the figures in the sanatorium table. The total expenditures of municipalities for tuberculosis work amounts to \$1,111,967.53. The total amount of literature distributed was over 1,000,000 pieces. A large number of cities adopted ordinances about tuberculosis during the year, but it has been impossible to get accurate returns about this work.

As shown by the foregoing figures, by far the largest amount of money spent during the past year was for the treatment of tuberculosis patients in sanatoria and hospitals, \$5,292,289.77 being expended in this way. The anti-tuberculosis associations spent \$975,889.56, the tuberculosis dispensaries and clinics, \$649,474.64, and the various municipalities, for special tuberculosis work, spent \$1,111,967.53. The anti-tuberculosis associations distributed the most literature, spreading far and wide 8,400,000 copies of circulars, pamphlets, and other printed matter for the purpose of educating the public about tuberculosis. The

health departments of the different cities also distributed more than 1,056,000 copies, which, with the work done by state departments of health, brings the number of pieces distributed during the year well over 10,000,000. The largest number of patients treated during the year was by the dispensaries, where 61,586 patients were given free treatment and advice. The sanatoria and hospitals treated 38,758 patients, while anti-tuberculosis associations assisted 16,968. The following table shows the work done by each class

Class.	Amount spent .	Copies of literature distributed.	No. of patients treated
Sanatoria . . .	\$5,292,289.77	.....	38,758
Associations. . .	975,889.56	8,399,629	16,968
Dispensaries . .	640,474.64	.....	61,586
Municipal work	1,111,967.53	1,056,780	.....
Total	\$8,180,621.50	9,456,409	117,312

In attempting to show what states lead in anti-tuberculosis work, three criteria have been used, the expenditures, the number of patients treated, and the literature distributed, these three factors being summed up for all of the different agencies doing anti-tuberculosis work. Taking the returns as reported, New York leads in all of these lines of work, while Pennsylvania comes second, and Massachusetts third. The fact that New York has twice as many hospital beds as any other state makes the total expenditures here the largest. New York does not lead in association expenditures Massachusetts has the largest total here, nearly \$375,000. New York leads, however, in municipal expenditures, with \$374,217.05, while Pennsylvania leads in dispensary expenditures with \$421,783.16. New York's and Pennsylvania's lead in literature distributed is due to the large international exhibitions held in these states, and also in the case of the former state to the aggressive campaigns of the State Charities Aid Association.

It is almost impossible to decide from the actual reports which state comes in the fourth, fifth or other places. For instance, while New Mexico and Colorado lead in expenditures and should come fourth, they have done little or no educational work and fall far below Missouri, Maryland and Illinois in the number of patients treated. On the other hand, the large number of patients treated in Maryland is due to several fine hospitals and a good

system of dispensaries in Baltimore. In Maryland 4,550 of the 5,829 patients were treated at the dispensaries, and in Illinois 3,117 out of 4,826. The same thing is true of Missouri. In Ohio, however, only 1,421 out of 3,197 were treated at dispensaries, and in Colorado all of the 3,229 were treated at sanatoria.

Less difficulty appears in grading according to the amount of literature distributed. If this is, as the writer feels, an index of the educational work done, Missouri stands third in this particular, with New Jersey fourth, Rhode Island fifth, and Illinois and Massachusetts sixth and seventh.

But more interesting and more expressive than the large totals of the leaders, are the blanks which indicate no work done by the laggards in the fight against tuberculosis. The following table will show what each state is doing. The arrangement of the states is in alphabetical order.

States.	Expenditures for tubercu- losis work.	Literature distributed.	No. of patients treated.
Alabama	\$1,090 75	1,000	125
Arizona	40,110 00	500	400
Arkansas	100 00	.....	.....
California	254,707 14	107,075	1,900
Colorado	566,205 17	37,000	3,229
Connecticut	220,190 98	13,500	1,141
Delaware	21,500 00	7,000	528
Dist. of Col.	52,500 00	210,000	1,375
Florida	12,100 00	4,000	150
Georgia	19,625 00	10,000	750
Idaho . . . . .	.....	.....	.....
Illinois	202,820 53	254,500	4,826
Indiana	35,160 00	20,700	848
Iowa	41,050 00	5,500	225
Kansas	4,600 00	1,500	30
Kentucky	57,515 00	25,100	365
Louisiana	41,500 00	152,500	670
Maine	46,400 00	10,000	355
Maryland	195,691 07	29,500	5,829
Massachusetts.	1,059,123 53	217,605	10,645
Michigan	93,306 09	123,150	580
Minnesota	82,117 98	89,000	1,002
Mississippi . . . . .	.....	.....	.....
Missouri	123,985 96	651,000	6,461
Montana	500 00	5,000	.....
Nebraska	60,500 00	28,899	80

Nevada . . . . .	.....	.....	.....
N. Hampshire.	12,437 50	15,000	150
New Jersey.... .	211,660 62	287,500	2,159
New Mexico.. . . .	628,352 02	.....	1,699
New York.... .	1,669,179 76	4,997,600	41,779
No. Carolina.	224,200 00	28,000	1,027
North Dakota.	150 00	1,000	5
Ohio	245,502 17	127,000	3,197
Oklahoma	3,000 00	6,000	75
Oregon	11,500 00	2,000	150
Pennsylvania	1,515,664 02	1,251,300	24,410
Rhode Island.. . . .	127,696 57	265,830	2,516
So. Carolina... . .	11,000 00	25,650	165
So. Dakota.... . . .	.....	.....	.....
Tennessee	26,340 00	33,300	175
Texas	202,281 87	213,000	988
Utah . . . . .	.....	.....	.....
Vermont	20,193 93	1,000	126
Virginia	53,615 79	16,000	1,495
Washington	36,400 00	85,500	210
W. Virginia... . .	5,500 00	82,000	10
Wisconsin	106,558 40	121,000	670
Wyoming . . . . .	.....	.....	.....

The leading cities in anti-tuberculosis work may be grouped in the following order: New York, Boston, Chicago, Philadelphia, Baltimore, St. Louis, Pittsburgh, Cincinnati, Rochester, and Denver. This order depends not only on the amounts spent but also on the general provisions made for the treatment and prevention of tuberculosis and on the work done along all lines.

Although this survey of the past year's work shows that much has been done, the reports from all parts of the country indicate that next year the amount of money to be expended, and the actual number of patients that will be treated, will be more than double that of the past year. For instance, special appropriations have been made in the various municipalities for next year's anti-tuberculosis work, aggregating \$3,976,500. In addition to these appropriations over \$4,000,000 has been set aside by the different state legislatures for the campaign against tuberculosis next year. Besides these sums a large number of the present existing institutions and associations are planning enlargements of their work, and new organizations are being formed daily.

DISTRICT NURSING VERSUS FRIENDLY VISITING

THE SUCCESSFUL NURSE A TRAINED SOCIAL WORKER— HER RELATION TO TUBERCULOSIS CLASSES

BY MABLE JACQUES

The problem of the tuberculosis patient in the home is one that at present is undoubtedly of much interest to all those working for the welfare of the community.

Tuberculosis we know to be first a communicable, second a curable, and third a preventable disease. It is principally upon the first and last counts that we must lay the greater amount of stress—at least from the standpoint of a nurse. If we can accomplish thoroughly and systematically the work of prevention, we can overcome the possibilities of the communicability.

This work of prevention must necessarily be carried on by one well versed in the subject of tuberculosis and the complications that are apt to arise in the physical condition of the patient, as well as in the important question of the family problem. Several years' experience in work of this kind leads me to believe that it is the work of the trained nurse.

Probably, so far, the best solution of home treatment is by means of tuberculosis classes, first started by Dr. Pratt, at the Emanuel Church in Boson, and now rapidly being adopted by various churches, hospitals and organizations throughout the country.

To be as concise as possible, we can define the tuberculosis class as being so far the best-known means of carrying on modern sanatorium treatment in the homes and of helping the tuberculosis patient to live without being a menace physically to his family and the community. I do not wish, however, to create here an erroneous idea that these classes are by any means perfectly satisfactory in their results to the physician, for, as in all forms of social, philanthropic and medical work, the results obtained rarely equal those hoped for.

The ideas gained by those outside of the medical profession of the work accomplished through the tuberculosis class is, I am afraid, very often exaggerated, especially as to the

number of cures accomplished. What we do hope and are striving for through class work is, mainly, the prevention of the disease through instruction and careful watching by the nurse in the homes, the arresting of the disease, as far as possible, and the care physically of the patient.

There has been a great deal of deviation in the management and system of these classes, but, fundamentally speaking, the object originally planned by the Emanuel class remains the same, the difference being principally in the details of the work. For instance, in the Emanuel Church they have a class of friendly visitors, instructed by the physician and nurse, for the purpose of supplementing the work of the nurse in the homes.

In Philadelphia, at the St. Stephen's class, we likewise tried the system of friendly visitors, but found it so unfortunate an undertaking that after a consultation between the physician, rector of the church and nurse we agreed to do away with the friendly visitors in the homes. A more interesting and attractive field of work might be set aside for them, namely, the raising of funds to keep up the supplies needed, such as sanitary sputum cups, paper napkins, milk, eggs and articles for the loan closet, in the way of warm clothing, sleeping hoods, sleeping bags, steamer chairs, tents, awnings, etc. This plan of work has proved most satisfactory to all concerned, and has added greatly to the possibilities of carrying out the work successfully.

I should like to speak here in detail of the work of the trained nurse in the home, both from the standpoint of a social worker as well as a trained nurse. The criticism has been made that the trained nurse, although of unquestioned skill in making a patient comfortable, has not the time or the knowledge for carrying on the social side of the work, such as the settling of family problems, obtaining money for the rent if need be, and

attending to the hundred and one little details that are apt to arise.

Is the district or visiting nurse really a social worker? Let us consider the social worker of academic training; place her in a district and see just how much she really is able to do until she has obtained the practical knowledge gained by a close study and investigation of the home conditions. All friendly visitors who are in any way able to do work which will be really effective must of necessity be under the instruction of a trained social worker. Take the district nurse of several years' experience. First of all we know her to be a trained nurse who must be able to carry on the treatment prescribed by the physician, as well as to instruct the patient in the methods that the physician wishes carried out.

In order to carry on this treatment satisfactorily the patient must make a confidant of the nurse, who will then know thoroughly the family conditions, what causes her patient worry and what causes happiness, all these things being of material effect upon the mind of the patient, and necessarily upon his physical condition. A well-trained district nurse knows well the co-operating societies of the city and their methods. Because she comes to relieve the physical needs of the patient, she quickly gains the information regarding the life of the patient which is necessary for her to determine on what basis the family stand; she knows that no improvement can take place in the patient's condition so long as the family remain on this basis, and she quickly sets about to remedy it. Her experienced mind points out to her the course best to pursue. She knows that in all probability she must draw on some other society for help in carrying out her ideas, and she knows to just what agency she had best apply for this help. There follows, or there should follow, the careful and satisfactory co-operation of the district nurse and the agent of another society, the nurse directing the welfare of the patient and the family physically and the social worker interfering in no way, but, on the contrary, consulting with the nurse constantly as to the best means possible to adjust the family problem, without affecting the health of the patient and family. An interesting example of this system of co-operation I should like to quote here:

A man of thirty-six years, suffering with tuberculosis, was reported to a tuberculosis nurse. She visited the home and found the man in a third-floor room, all windows tightly closed, although it was the middle of July, and

an unusually warm day. He was an advanced consumptive having a temperature of 103 in the morning, a dangerous outlook from a medical standpoint, and his wife and three small children showed clearly the marks of hunger. It was a late Saturday afternoon when most places where relief might be obtained were closed. However, food was obtained for the family and one point was gained toward winning the confidence of the nurse. Then a physician was obtained to visit the patient, followed by the campaign for better ventilation. At first the patient refused emphatically to have even the windows open, but the nurse, not to be daunted, erected, with the help of the wife a platform in the small yard, drew on her loan closet for awning, beds, mattresses and bedding, and the patient was persuaded, because of the confidence already placed in the nurse, to sleep in the yard. That was all two years ago. The patient has never slept indoors since, despite wind and rain, snow and hail, and he lives, too, on a corner where he gets them in full blast. What is best of all is the fact that he supports his family and is comparatively well. Careful examination from time to time shows that his family have not become infected with the disease, and, above all, a great factor towards the continuance of good health is assured, for they are, one and all, happy. The only help necessary were funds, obtained from a beneficial society of the church attended by the family to help them over the needy time.

Can any one, who knows well the district work, doubt that the trained nurse in district work is not also a social worker?

Before leaving the subject of the nurse as the visitor in the homes, it might be well to consider the question from the physician's point of view, for, after all, no matter how important is the work of the visitor in the homes, it is really the physician who makes the work possible, for, without the physician as our head at dispensary or class, no work in the homes could be carried on.

The physician knows two classes of nurses: the nurse in private practice and the nurse in district work. The first class are continually under the guidance of the physician, who probably visits his patient once or twice a day—relieving her of a great amount of responsibility. The district nurse, on the other hand, has of necessity much responsibility, especially the nurse of a tuberculosis class, where all the responsibility of the home work rests on her shoulders.

The physician cannot see the class patients more than once a week, when he sees them at the class meetings. The rest of the week

they must be watched carefully, and it must be by a person who is able to recognize physical conditions, for a tuberculosis patient is an uncertain person. We may leave him one day in apparently extremely good condition and the next day may return to find him in the midst of a hemorrhage or suffering with the shortness of breath that so often occurs, paroxysm of coughing, or pleurisy, all of which are more or less dangerous to the patient and must be met and dealt with at once. Is the friendly visitor able to cope with these emergencies? And does the physician feel at ease when his patients are not in good hands, in the hands of some one who has not been trained to meet these emergencies? If the physician wishes a patient to have a certain treatment, is the friendly visitor able to give them?

An example here of the comparison between the friendly visitor and the trained nurse might be illustrated in rather a sad example which comes to my mind:

A patient, who for months had been fighting hard for his life, was called on by a friendly visitor. The man appeared in good condition to her—the family poor and in need. Why shouldn't the man work, she thought? Out of the kindness of her heart, and the assurance from his appearance that he was in a condition to work, she persuaded a friend in a neighboring suburb to give him work which she considered light—running a lawn mower. For two days the lawn was mowed, then one day on the car going to work came the blow without any warning, a hemorrhage.

Again, there is the instance of a small child who had been visited for eight months by a friendly visitor in charge of tuberculosis work. The child had been very ill for months. Finally a district nurse was sent for only to find that the child was so filthy that before giving her a bath it was necessary to scrape off the dirt. These are not exaggerated stories, but illustrate merely the sad conditions which exist and which prove that medical work must be done by medical people, trained and able to meet these complicated emergencies which are apt to arise, people in whose judgment the physician is able to place responsibility.

That the tuberculosis class properly managed is a power for great good in a community is undoubtedly true from both a social as well as a physical standpoint; but a tuberculosis class poorly run is apt to exert an influence which has far from the effect desired upon those most closely concerned, the patients themselves. They are very likely to learn just enough to make them feel that they know all there is to know and so endeavor to carry out ideas of their own thinking.

An important feature in the development of

class work might possibly arise from the fact that the great majority of the tuberculosis patients are foreigners who are unable to read and write, and consequently it might be impossible for them to keep the record books which in every well-run class have been a most necessary factor of the class work. It is around these books, in which is recorded not only their temperature, pulse and respiration, but the quantity of food, amount of sleep, exercise and the general happenings from day to day, all of which are most important for the physician to know in his treatment of the patient, that recovery frequently hinges.

The general plan on which a class is conducted is somewhat as follows:

The patients meet once a week in the class rooms, which should consist of not less than three rooms: a waiting room, consulting room and an examining room. The patients gather in the classroom, if possible, about a half an hour before time for the physician to arrive. They are weighed and their temperature, pulse, etc., taken by the nurse in charge. The physician arrives and opens the class with roll call. If a patient is absent two weeks in succession his milk and eggs are stopped until regular attendance begins again. If three weeks elapse he is dropped from the class and turned over to a dispensary or district nurse society.

After roll call a talk is given to the class by the physician or nurse on some important subject, such as care of the sputum, ventilation, diet, etc. Then the record books above mentioned are carefully gone over by the physician, corrections being made before the whole class so that each may profit by the mistakes of the other.

The physician then goes to his consulting room and the patients are seen by him individually, he prescribing for them if need be.

All patients who cannot buy their own milk and eggs are supplied with them, also with drugs and sputum supplies. No patient is admitted to the class until he has had a careful physical examination made by the physician, and the home conditions are investigated by the nurse and reported to the physician.

The nurse upon visiting the patient readjusts the sleeping arrangements; obtains a very careful family and personal history; finds out the financial condition; instructs the patient in the taking of temperature and pulse and the general keeping of the record book. If, upon the visits from time to time, the patients need nursing care, the nurse is prepared to give it to them. She is the advisor and friend, not only to the patient but the family, making herself intimately familiar with even the slightest details of their lives, and in that way being able to meet any emergency that may arise.

Little Lights

BY STEPHEN CHALMERS

Under the heading, LITTLE LIGHTS, we will publish from time to time a series of related poems by Stephen Chalmers, of which the following are the first. Many of these verses were written at Saranac Lake, in the Adirondacks, and reflect the alternating pessimism and optimism of one handicapped by ill-health. That they express the heart echoes of many who, like the author himself, live in exile, is evidenced by the reception accorded some of them that have been published elsewhere. Realizing that these Little Lights to brighten a somber way will discover a sympathetic strain in the hearts of our readers, we have requested Mr. Chalmers to allow us to print them here.—EDITOR.

TO MY IDEALS.

Children, O my children!
When the ship comes home,
I will deck you to my pleasure
With my riches and my leisure,
And then, and forever,
We will roam.

Children, O my children!
When the ship comes home,
And no longer we are sighing
O'er this weary ever-trying
'Gainst the sea and the breakers'
Stinging foam.

Then, children, O my children!
Though the tide sets strong—
Though our eyes are growing heavy,
And the time seems long—
We'll forget our yester-sorrow
In gay planning for the morrow,
And cheer us in our waiting
With a song!

TEMPUS FUGIT.

Lo, the gray gossamer of the years
Silters the days,
And Time, that hoary spider of our
fears,
Spins always,
Silent, unseen, save when we lift our
eyes,
Up from the thrilling page of smiles
and sighs,
And gaze
Where the gray gossamer of the years
Fills the house-corners. And remem-
bering tears
Deepen the haze.

THE ROSES.*

Priscilla sent me roses,
Roses white and red.
Brought they roses to me,
And laid them on my bed.
Her name is not Priscilla,
Nor meant for me her posies,
But let it be!
It pleases me,
So, pray you, for the time agree—
Priscilla sent me roses!

But why call her Priscilla,
Whom I have never known?
Ah, you would have me whisper
A secret all my own.
But once I saw her walking
And gathering such roses,
A Mayflower lass
Who, in her glass,
For sweet Priscilla well might pass,
To whom poor John proposes.

Priscilla sent me roses.
Their cheeks were pink and fair,
And o'er them, drooping gently,
Hung sweetest maiden hair.
Her name is not Priscilla,
Nor meant for me her posies;
But have your will.
I'll swear so still!
And, spite of all, I'll drink my fill
Of beauty from her roses.

*A certain lady sent roses to a friend. By mistake they were delivered to one who, ill at the time, now and thus acknowledges a pardonable theft.

THE ANTI-TUBERCULOSIS BILL POSTER CAMPAIGN

INFORMATION REGARDING THE PROCURING OF POSTERS

The National Association for the Study and Prevention of Tuberculosis is trying to stimulate the campaign of education regarding tuberculosis in every part of the United States by means of posters, which will impress upon the public that tuberculosis can be prevented and cured. Many people do not read books or pamphlets, and are therefore most difficult to reach and yet most in need of instruction. They can only be attracted in some striking way, and the use of the bill-boards of the country for posting information regarding tuberculosis is a method of education which seems to meet these conditions.

The Associated Billposters of the United States have with great generosity offered all the vacant space on the bill-boards of the country to be used for displaying educational posters, and have offered, further, to put up free of charge the posters that are furnished. The Poster Printers Association, with similar generosity, have offered to print the posters gratis.

The designs shown in this circular have been selected from a large number of drawings offered by prominent artists and illustrators. As furnished they will be an eight-sheet poster 7 feet wide by 9 feet 4 inches high, and can be used on single eight sheet poster boards or in series on 24 sheet poster boards. These are printed in three colors and will attract attention at a distance.

A strip of paper 28 inches wide by 14 inches high should be printed with the name and address of the local anti-tuberculosis organization, to notify persons where literature and information in regard to the prevention and treatment of tuberculosis can be obtained.

This is to be placed at the bottom of the poster in a space reserved for that purpose. Enough posters will be supplied to societies or private individuals, who wish to use them for educational purposes in cities, towns and villages of the United States at the rate of one dollar for each poster space. This small charge includes the first poster put up and all the extra posters needed for a period of six months to replace those destroyed by wear or exposure, and is made to cover the incidental expenses of the National Association for the Study and Prevention of Tuberculosis.

Any one ordering these posters is requested to notify the Billposting Company of their town and ask for information regarding the number of poster spaces they will supply for this purpose. A rough estimate of the number of poster spaces needed in any one locality can be made by allowing one poster to each 1000 of the population.

The National Association intends to furnish other designs and suggestions for use as posters from time to time, and therefore will not send the total number of posters needed for six months in the first delivery unless so requested.


In addition to using the posters supplied by the Association, it is suggested that other posters containing reading matter be used. Suggestions for the text of these posters will be supplied by the National Association, and the printing can be done by any local poster printer.

For further information, or when ordering the posters, address the

National Association for the Study and Prevention of Tuberculosis, 105 E. 22d Street, New York City.

**BAD AIR
LEADS TO
CONSUMPTION**

*Don't Crowd the Sleeping Room
or Work Room*



The National
Association
For the Study
and Prevention
of
Tuberculosis

POSTING
DONATED
By the
CITY
BILL POSTER.

Poster No. 3

**FRESH AIR, GOOD FOOD,
REST, SUNSHINE
and Life in the Country
CURE CONSUMPTION**

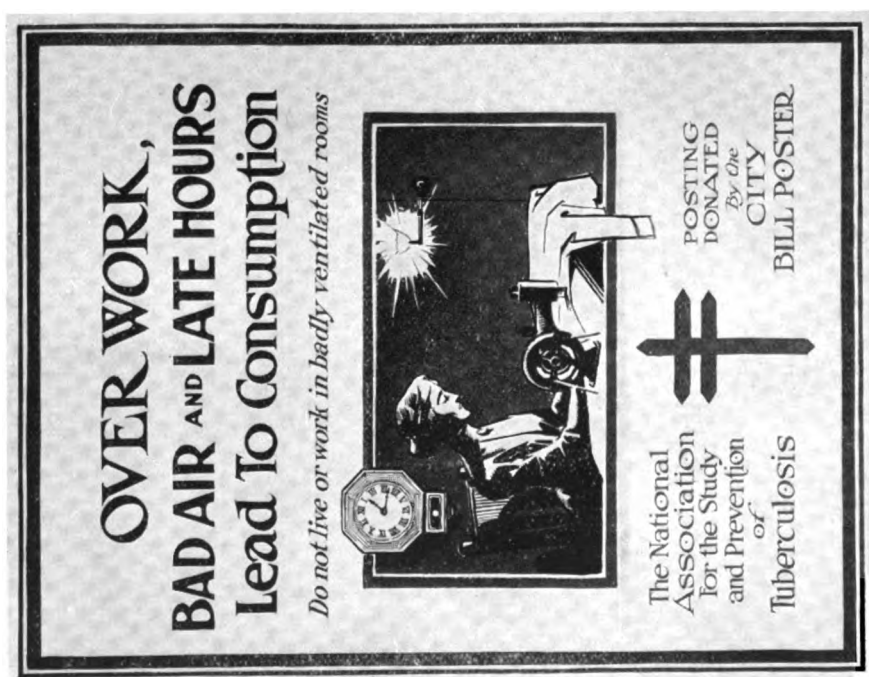
Do not wait if you have a cough. Go to the doctor



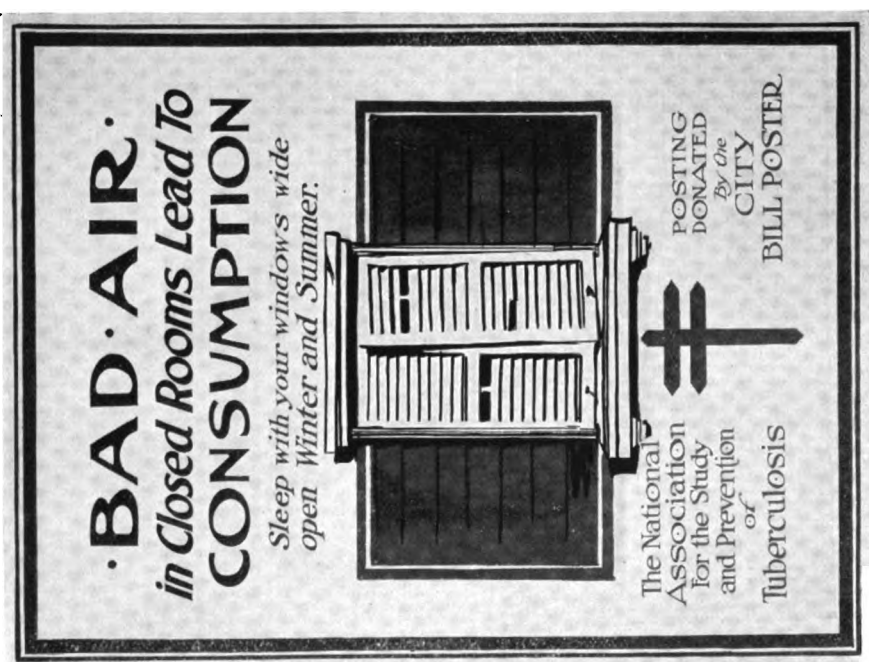
The National
Association
For the Study
and Prevention
of
Tuberculosis

POSTING
DONATED
By the
CITY
BILL POSTER.

Poster No. 2



Poster No. 4



Poster No. 5

A Careless Consumptive is Dangerous to His Family

*Don't spit on the floor
Don't make dust when sweeping*



The National
Association
for the Study
and Prevention
of
Tuberculosis

POSTING
DONATED
By the
CITY
BILL POSTER.

Poster No. 7

INTEMPERANCE and other Excesses LEAD TO CONSUMPTION



The National
Association
for the Study
and Prevention
of
Tuberculosis

POSTING
DONATED
By the
CITY
BILL POSTER.

Poster No. 8

Journal of the Outdoor Life

OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS; THE KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION; THE PENNSYLVANIA SOCIETY FOR THE PREVENTION OF TUBERCULOSIS; THE NEW HAVEN COUNTY ANTI-TUBERCULOSIS ASSOCIATION; SARANAC LAKE SOCIETY FOR THE CONTROL OF TUBERCULOSIS; PROVIDENCE, R. I., LEAGUE FOR SUPPRESSION OF TUBERCULOSIS; ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS OF THE DISTRICT OF COLUMBIA, JACKSONVILLE, ILLINOIS, ANTI-TUBERCULOSIS SOCIETY.

PUBLISHED MONTHLY BY

JOURNAL OF THE OUTDOOR LIFE PUBLISHING COMPANY

2 RECTOR STREET, NEW YORK CITY

JAMES ALEXANDER MILLER, M. D.
President

WARWICK S. CARPENTER
Secretary and Managing Editor

LIVINGSTON FARRAND, M. D.
Vice-President and Treasurer

The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

"JOURNAL OF THE OUTDOOR LIFE" MOVES TO NEW YORK

This issue marks a change in the office of publication and management of the JOURNAL OF THE OUTDOOR LIFE from Trudeau to New York City. The step has been undertaken after most careful consideration of the necessities of the situation and of the advantages which the magazine might expect to derive from being located in New York.

It is clear that the magazine's early association with the Adirondack Cottage Sanitarium was directly responsible for a great measure of its unexpected growth, being located, as it has been, on the grounds of that pioneer institution for the treatment of tuberculosis, and reflecting always in its pages the spirit of what is so well known as the Saranac Lake Movement. The moral influence of the sanitarium, as well as the hearty practical support of the business houses of Saranac Lake, made its existence possible in its first struggling years. But, with the growth of the anti-tuberculosis movement throughout the United States, the magazine has gradually acquired an importance as a general medium of information

which has made its transfer to a larger centre inevitable.

The JOURNAL OF THE OUTDOOR LIFE began six years ago as an eight-page folder, published at the Adirondack Cottage Sanitarium, principally in order that the patients at that institution might receive instruction which could best be given in printed form. The publication was the idea of Dr. Lawrason Brown, resident physician of the sanitarium, and he has ever since remained responsible for the magazine through the many vicissitudes and successes of its career. Upon the first anniversary of its birth it appeared with twenty-four pages and a cover, having entirely outgrown the possibilities of a leaflet, both on account of the increased number of its readers and also because of the prompt response from anti-tuberculosis workers to Dr. Brown's request for contributions to its columns.

If the JOURNAL OF THE OUTDOOR LIFE has always been hailed as a factor to be reckoned with in the anti-tuberculosis campaign, it still must not be thought that everything has been smooth sailing. In fact, the contrary has been the case. The magazine had little in the way of

precedent to guide it. It was intended for a mixed circle of readers, physicians, laymen, patients and social workers. Its editorial policy had to be mapped out and the limitations of its field clearly understood and defined. This was the problem to which Dr. Brown applied his literary ability and his own interpretation of the highest ideals of his profession. The magazine accordingly has always stood as an expression of the personality of its founder, and an appreciation of what the JOURNAL OF THE OUTDOOR LIFE has accomplished must be an appreciation of the man who has directed the entire course of the magazine through six years of its existence.

On the financial side the problems have been no less difficult and trying. Very frequently the magazine has not paid expenses. It is no light matter to finance a publication whose sole object is to push a propaganda and whose mission is to teach many people things of which perhaps they do not realize the value. Many times the magazine has incurred a deficit and for this Dr. Brown has always held himself responsible. Should a balance ever appear upon the right side of the ledger, it has always been turned back immediately into the magazine in order that its influence might be extended further.

It is a matter of sincere regret to every worker in the tuberculosis cause that Dr. Brown has found it necessary to withdraw from the management of the JOURNAL OF THE OUTDOOR LIFE, and it is with great pleasure that those who have now assumed the control of the magazine in New York are able to testify from personal knowledge to Dr. Brown's part in giving a medium to the anti-tuberculosis movement and to accord to him the credit which is his due and which he always refused while he was in control of these pages.

The magazine has from first to last been the product almost without exception of those who have themselves fully understood what it means to fight tuberculosis. It has been the expression of that spirit which Dr. Trudeau and the group he has gathered about him have shown in every effort, day in and day out, entirely in the interest of humanity and without expectation of reward, to reduce the ravages of tuberculosis. Now that the magazine is to be published in New York under different auspices, it is hoped that this spirit will never be lost sight of, but that it may continue to exhibit in its pages the breadth of view and the altruism which have characterized its foundation and its past career.

SIXTH ANNUAL MEETING OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

The Sixth Annual Meeting of the National Association will be held at the New Willard Hotel, Washington, May 2d and 3d, 1910. In organizing the meeting, the Board of Directors has decided to omit the sections on surgical tuberculosis and tuberculosis in children, retaining for the coming meeting the three original sections of the Association. The officers for the meeting are as follows:

CLINICAL SECTION:

Chairman—Dr. Lewellys F. Barker, Baltimore, Md.

Secretary—Dr. Louis V. Hamman, Baltimore, Md.

PATHOLOGICAL SECTION:

Chairman—Dr. Theobald Smith, Boston, Mass.

Secretary—Dr. Walter C. Bailey, Boston, Mass.

SOCIOLOGICAL SECTION:

Chairman—Mr. Bernard Flexner, Louisville, Ky.

The Chairman of the Advisory Council for the coming meeting is Dr. Henry M. Bracken, St. Paul, Minn.

IMPROVED HOUSE CONSTRUCTION

The following recommendations on improved house construction were prepared by a committee appointed by the Saranac Lake Society for the Control of Tuberculosis to draft suggestions for those intending to build dwellings for occupancy by invalids. The special provisions in construction which are desirable for those taking the cure are important and well worth careful study before plans are drawn.

Bed rooms should be at least 10 feet by 12 feet by 8 feet high. This gives a cubic content of about 1000 cubic feet, without closets.

Servants' rooms should not be constructed so as to be less sanitary than the rest of the dwelling.

Dining rooms in large boarding houses or hotels should have at least 22 square feet per person.

Bath rooms should have dimensions of at least 6 feet by 8 feet, and each to serve not more than ten persons.

Water closets are required on each floor, including the ground floor, and should be provided with an outside window. Each should serve not more than five persons.

Windows.—In each bedroom there should be two, or one with a door opening out of doors.

There should be at least 24 square feet of opening for each room.

Storm Sashes.—At least one window in each sleeping room should be kept free from a storm sash for the sake of proper ventilation. Other windows may have them either hinged or furnished with slots for ventilation.

Walls.—The surface of walls should be of such material as to permit of frequent renovation.

Floors should be of hard wood and smooth.

Porches, First Floor.—Those for the first or ground floor should if possible have a minimum width inside of rails of 10 feet and arranged if possible in the angles of the building.

A low, solid rail about 20 inches high is advisable.

One end may be enclosed with sashes arranged to slide. The front, or one end, should be entirely open and not glazed.

The height of the plate, or roof eaves, above porch floor should be from 7 to 7½ feet. A porch facing northeast or north is very desirable during hot weather if it can be arranged in addition to the main porch, which should face toward the south or southeast when possible.

In case the first-floor porches are used for sleeping, the room and porch floor should be made flush with a hardwood door saddle, slightly rounded on top, cut in between room and porch floors. Any door giving access from rooms to porches to permit passage of beds should be at least 3 feet 8 inches in width.

Porch floors should have a grade of 1 inch for each 5 feet of width.

Awnings are desirable in many cases, but care should be taken that attachments do not rattle in the wind. Dark shades on the sashes are needed in hot weather.

Balconies, Second Floor.—The dimensions for the first-floor porches are most desirable for other floors. The length should be at least 10 feet to accommodate a bed. Shelter should be provided at possibly two sides, depending on exposure, by sashes, angles or recesses in the house; none in front. Recessed porches in general are more desirable architecturally and for protection in sleeping out of doors.

The most economical flooring is spruce laid in white lead and oil over exposed joints. Grade 1 inch to 5 feet to scuppers at front of porch. Scuppers to be about 3 inches high by 12 inches long, provided with ¾-inch hinged covers. Railings should be solid. Dutch doors for sleeping rooms are to be recommended when opening on balconies.

Balconies for houses already constructed are necessarily governed by the conditions of the situations of rooms, possibility of support from below and exposure to wind and weather.

If a wing can be added to first and second floors the dimensions already given may be adhered to; otherwise, if support must be erected from below by posts, their appearance detracts from the appearance of the house.

If supported on brackets, a maximum width of 6 feet and minimum length of 10 feet is advisable. Otherwise the recommendations previously made for new houses will apply to alterations.

Continuous porches, or balconies, divided off into compartments that exclude direct sunlight from sleeping rooms are not considered desirable.

Tent platforms should have curbs or sides boarded up about 3 feet for safety and dryness. Tents should be provided with stoves.

Shacks should have hinged sides above a 3-foot curb.

Architecture.—Persons contemplating the building of houses intended for invalid tenants or boarding houses should consider the advantages of attractive architecture. Book plans are rarely suited to these purposes without extensive alteration.

NATIONAL ASSOCIATION

EDITED BY PHIL. P. JACOBS, ASSISTANT SECRETARY

WHAT THE NATIONAL'S EXHIBITS ARE DOING.

South Carolina and Colorado are displaying unusual interest in the exhibition campaigns conducted by the National Association for the Study and Prevention of Tuberculosis. These two states have heretofore done little preventive work along the line of tuberculosis. Colorado has through its climate drawn many people to the tuberculosis sanatoria in Denver and Colorado Springs, but no attempt to check the ravages of tuberculosis have been made. Now a state movement against this disease is planned, and it is expected that under the influence of the enthusiasm generated in Pueblo, Colorado Springs and Denver, notification laws, and other preventive measures will be enacted.

In South Carolina, a systematic campaign is being carried on. The exhibition has closed its work in Charleston, and opened on December 1st in Greenville after the usual preliminary campaign. The city council of Charleston appropriated \$800 to defray the expenses of the exhibition. Columbia and Greenville have appropriated similar sums. The exhibition will be held in Columbia, the state capital, during the session of the state legislature in January. Tuberculosis legislation will be discussed, and it is expected that some provision for state anti-tuberculosis work will be made.

Following the campaign in Columbia, the exhibition will open in connection with the North Carolina Medical Association in Greensboro, N. C., in which state a comprehensive program for the exhibit is being prepared. The western exhibition of the National Association has gone from Colorado to Oklahoma, where extensive preparations for the campaign in that state have been made. The first city at which the exhibition will be shown is Oklahoma City.

ORGANIC DUST BREEDS TUBERCULOSIS.

A few months ago the Bureau of Labor of the Department of Commerce and Labor issued a bulletin (No. 79) by Frederick L. Hoffman on Consumption in Dusty Trades, dealing only with those trades exposed to mineral and metallic dusts. A new bulletin by Mr. Hoffman (No. 82) has just been issued and deals with tuberculosis in occupations exposed to "municipal" and general organic dust.

While Mr. Hoffman finds that the general mortality from tuberculosis in such laborers

as street cleaners, drivers, coachmen, subway employees, exposed to municipal dust, and millers, bakers, tanners, tobacco workers, boot and shoe makers and others exposed to organic dust, is about the same as that for all employed males, the mortality for tuberculosis and other respiratory diseases is high. For instance, the percentage of deaths due to tuberculosis among males exposed to organic dust is 23, while the percentage for all males in the registration area is only 14.8. Particularly high is the mortality from tuberculosis in this class between the ages of 15 and 45.

Yet Mr. Hoffman concludes: "The tabular analysis of the mortality of persons employed in occupations with exposure to organic dust indicates that the effects of such dust exposure are less serious than the corresponding effects of exposure to metallic and mineral dusts, but the consequences to health and life are sufficiently serious to demand most careful attention to the whole problem of dust prevention and removal at the point of origin, in conformity to modern methods of factory sanitation."

APPROPRIATES \$2,150,000 FOR TUBERCULOSIS BUILDINGS.

The Board of Estimate and Apportionment of New York City during the month of December, voted \$2,150,000 to the Department of Charities for the erection of tuberculosis hospital buildings. Of this sum, \$1,350,000 was for the completion of the large Sea View Hospital on Staten Island. The appropriation for this institution was delayed for nearly two years by the opposition of Staten Island property owners and later pending the decision in regard to New York City's debt limit. With this appropriation, most of the institution can be completed. The Sea View Hospital will accommodate 1,000 patients when finished. The other \$800,000 appropriated was for the completion of the Tuberculosis Infirmary for Advanced Cases, on Blackwell's Island. This institution when completed will give nearly 1,000 tuberculosis beds, which with those provided by the Department of Health on North Brother Island and at Otisville will give New York nearly 3,000 hospital beds for tuberculosis.

A HEALTH CONFERENCE IN SOUTH CAROLINA.

A unique conference on Health and Hygiene, with special reference to tuberculosis, was held last week in Greenville, S. C., for the purpose of enlisting co-operation along these lines in the mill villages surrounding Greenville. The conference was held in connection with the

American Tuberculosis Exhibition of the National Association for the Study and Prevention of Tuberculosis, and was organized by E. G. Routzahn. It is the first gathering of the character ever held by the mill operators and employees. Some of the topics discussed at the conference were:

Why a conference;

What it might do;

What it will do;

What methods for prevention are successful in arousing unvaried interest in cleaning up and beautifying and planting gardens;

How can the schools and village clubs make or gather material for a Tuberculosis Health Exhibit;

To what extent and in what directions can the teachers and the preachers in their regular work, help in the campaign of health education;

How to form a neighborhood committee or council on health and sanitation without having a new organization;

What topics can be used for health talks by physicians and others so that the simple matters of cleanliness and perfection can be discussed without offense;

How to get lantern slides to illustrate talks;

What simple form of federation is practicable to continue the work of this conference throughout the year, so that all the mill towns in the two Carolinas may benefit?

After the conference a permanent organization for the promotion of education along the lines of public health and sanitation was formed. The committee which arranged the conference were: Thomas F. Parker, President Monaghan Mills, S. C.; Dr. J. W. Jervey, Greenville, S. C.; J. S. Osteen, Supt., Poe Manufacturing Company, Greenville, S. C.; G. C. Huntington Interstate Secretary Y M. C. A.; Lillian L. Long, National Secretary Mill Villages, Y. W. C. A.; E. G. Routzahn, Director, American Tuberculosis Exhibition; Dr. Anna L. Brown, Nat'l Secretary Physical Education and Hygiene, Y. W. C. A., Chairman.

MAYOR GIVES HOSPITAL SITE.

Mayor J. N. Adam, of Buffalo, has agreed to buy a site for the new municipal tuberculosis hospital of that city at a cost of \$19,560. The action of Mayor Adam came as a surprise to the Commission which has charge of the erection of the hospital. After going over the various sites offered it was finally decided to purchase one at Perrysburg for \$19,560. The mayor then quietly announced that he would pay for it. In recognition of this action it has been decided to call the hospital the "J. N. Adam Memorial Hospital."

The Perrysburg site consists of about 293 acres of land, being made up of four different farms. It is considered an ideal location for the hospital, being high enough to secure a

dry atmosphere, while there are numerous other advantages. On a clear day Buffalo, about 50 miles away, can be seen from the highest point on the property. Apart from its health giving advantages, the site has the additional one of natural beauty. The site is near the Erie Railroad Company's tracks and is on the main highway to Dayton.

The last state legislature enabled Buffalo to spend \$250,000 on a tuberculosis hospital. The plans for the buildings will be prepared as soon as possible.

DR. FORSTER GOES TO LOUISVILLE.

Dr. Alexius M. Forster, who has for several years been resident physician of the Eudowood Sanatorium at Towson, Md., recently resigned and took up on January 1st the general supervision of the tuberculosis work of Louisville, Ky. Dr. Forster will work as the representative of the Board of Tuberculosis Hospital, which is building a new municipal hospital six miles from Louisville; the Louisville Anti-Tuberculosis Association, and the Board of the Association Sanatorium, which is conducted by the Louisville Association. These boards have not consolidated, but are working in close co-operation with each other. Dr. Forster will seek to co-ordinate the entire anti-tuberculosis work of the city with the view to securing the most economical and efficient administration.

Dr. Forster's successor at Eudowood has not yet been chosen.

NEW YORK'S COUNTY HOSPITALS.

County hospitals for tuberculosis are becoming popular in New York, since the passage of a law by the last legislature giving boards of supervisors power to erect such institutions.

Work has been begun on a hospital in Ontario County. In Ulster and Schenectady counties the supervisors have agreed to enlarge and operate private tuberculosis camps in connection with local anti-tuberculosis societies. In St. Lawrence County a house will probably be secured and remodelled for a sanatorium. In Monroe County \$75,000 has been appropriated for a hospital, and Onondaga County has asked for \$30,000. Active campaigns for institutions are being carried on in Broome, Saratoga, Chautauqua and Oswego counties.

WILL HAVE SANATORIUM NOW.

The Arkansas State Tuberculosis Commission is planning to resort to unusual measures in order to secure the erection of their state sanatorium at once. The last legislature granted \$50,000 for buildings and \$30,000 for maintenance of a sanatorium, but owing to the depleted condition of the state treasury no money is now available. To finance the sanatorium, the board have accepted temporary aid from private individuals, and work will be started at an early date on the erection of the first building. Dr. J. A. Shibley, the

superintendent of the new sanatorium, has traveled all over the country, making a study of construction and administration, and the benefit of this experience will be put into the Arkansas institution. A site of 1,000 acres has been donated and accepted by the commission at Booneville.

A similar situation prevails in Indiana, where enough money to build the state sanatorium has been appropriated, but not enough to maintain it till the next session of the legislature. Several philanthropic citizens have offered to contribute enough to support the institution till the necessary funds can be procured from the state.

In Alabama, the legislature two years ago granted \$40,000 for a state sanatorium, but the governor refuses to make the money available because of the low condition of the treasury.

COLLECTS \$23,000 IN A DAY.

Probably the largest single day's collection for funds to be used in tuberculosis prevention was made in St. Paul, Minn., when \$23,000 was gathered in through a tag-day celebration. This was the result of a thorough campaign of publicity, coupled with a perfect organization of women, through which almost every citizen in the streets was approached for funds. Some indication of the number of contributions can be gained from the fact that out of 121,321 pieces of money collected, nearly 90,000 were nickels, dimes and quarters. Less than \$4,000 was in half dollars and dollars.

The St. Paul Anti-Tuberculosis Committee will spend the money in the conduct of its sanatorium and in an educational campaign in the city.

VIRGINIA ANTI-TUBERCULOSIS ASSOCIATION.

The forces fighting tuberculosis in Virginia have joined hands in perfecting a new state organization, with Captain W. W. Baker as president and Dr. Truman A. Parker, of Richmond, as executive secretary. The association is representative of the state, and should be the means of arousing a wide interest in tuberculosis. The Red Cross Stamp Campaign will be the first work of the new organization.

LAKE EDWARD SANATORIUM OPENED.

The Lake Edward Sanatorium at Lake Edward, Quebec, was recently opened for the admission of patients. The movement for the sanatorium was started about three years ago. This is the first institution solely for tuberculosis patients in the Province of Quebec, except for those in Montreal. The new sanatorium is located 112 miles from Quebec at an elevation of 1,500 feet. It has accommodations for thirty patients, each in a separate room. The rates have been fixed very low, so

that the institution will be semi-philanthropic in character.

CHILDREN WILL BUILD SHACK.

When the banks of the 100 little children composing the Junior Auxiliary, No. 2, of Philadelphia, of the Free Hospital for Poor Consumptives and the White Haven Sanatorium Association were opened a few days ago, at the semi-annual meeting, it was found that enough pennies had been saved to complete the fund necessary for the erection of the children's "shack" at White Haven.

The officers of the auxiliary are: Chairman, Miss Mary Jordan; vice-chairmen, Miss Louisette Nusbaum, Miss Dora Virginia Lovenstein and Henry Louchheim; secretary, Miss Cecilia Flick, and assistant secretary, Andrew Lee.

A TUBERCULOSIS SANATORIUM FOR DETROIT.

Prospects for a tuberculosis sanatorium under the auspices of the Detroit Society for the Study and Prevention of Tuberculosis are extremely bright. A ten acre site on the outskirts of the city has been given to the society. A fund of nearly \$15,000 is already on hand. Several beds have been promised by private individuals and organizations.

It is planned to spend \$50,000 in the erection of an institution with a capacity for 100 beds. Every labor union and fraternal organization in the city is being asked to support one or more beds in the hospital. The society feels that in this way most of the maintenance can be guaranteed.

TUBERCULOSIS PAVILION FOR MISSOURI PENITENTIARY.

Plans have been made for building a pavilion for the open air treatment of convicts with tuberculosis in the Missouri Penitentiary. A site has been chosen facing the south and east, and overlooking the wall, the enclosure being on a hillside. The materials used will be granitoid, with a fibre covering for the roof, ends, and back. The open front will have a movable protection for exceptional days. The convicts will do the work. The cost of the building will probably not exceed \$600.00. This pavilion will be for first and second stage cases. Advanced cases of tuberculosis will be cared for on the third floor of the prison infirmary.

NO TUBERCULOSIS IN 1915 OR 1920?

Optimism in the campaign against tuberculosis is evidenced in the slogans recently adopted in at least two communities. In Ontario County, New York, the motto is "No Tuberculosis in 1915." In Nebraska the state war cry is "No Tuberculosis in Nebraska in 1920." Both of these slogans are used in connection with vigorous campaigns for the sale of Red Cross Christmas stamps.

BOOK REVIEWS

FIFTH REPORT OF PHIPPS INSTITUTE

Reviewed by Phil P. Jacobs

To the student of the social relations of tuberculosis, the "Clinical and Sociological Report of the Year," given by Dr. Lawrence F. Flick in the Fifth Annual Report of the Henry Phipps Institute of Philadelphia, presents a most interesting summary. For the medical student and practitioner the remainder of the report will probably have a leading interest.

A brief resumé of some of the leading facts brought out by Dr. Flick's study should prove of value to those who cannot read the report. He finds, for instance, that the percentage of native born patients treated during the year was 56.48 per cent. that 71.11 per cent. of the foreign-born patients had been in the country over five years and that the average period of residence in America of 311 foreign-born patients was 12.34 years. Dr. Flick thinks, however, that a large number of this latter class contracted their disease from unsanitary houses in this country.

The statistics seem to support the view that tuberculosis occurs more frequently among the married than in the single state. The idea that tall people are more liable to tuberculosis than short ones is not given support by Dr. Flick. He says "Individuals above the average height gave no worse results than those of and below the average height." More than one-half of the white people who applied were dark complexioned, although nearly one-half of the patients were of Teutonic and Celtic origin, a fact which is of interest to certain supporters of theories of blondness in its relation to tuberculosis. Negroes have the highest mortality, however, and next to them come the light complexions, with the dark complexioned following and the red complexioned last.

The morbidity and mortality under ten years was only 1.90 per cent. of the number in attendance, although the percentage of children under ten in the population of Philadelphia is 9.94 per cent. In the age groups between twenty and fifty the percentage of mortality and morbidity from tuberculosis is greater than the percentage of these groups in the general population. Under the head of occupations, those who are exposed to dust have the highest rate of sickness. In regard to alcoholism, Dr. Flick concludes, "The mortality among those who admit a history of alcoholism is 100 per cent. higher than it is

among those who deny it and the mortality among those who admit a history of alcoholism in the preceding generation is about 80 per cent. higher than the mortality among those who deny it." And as with alcohol, so with tobacco, the mortality was much greater among those who used it than among those who did not use it.

The most striking feature about the statistics of residence is the frequency of change by patients. The average changes of residence for each patient was 2.64. "This means," says Dr. Flick, "that among the poor, the consumptive on an average contaminates two houses a year." The average number of beds per family was 3.74 the average number of people in the house, 5.83, and the average number of sleeping rooms, 3.44 per family. This indicates that it would be impossible in most cases for the patient to have a room and a bed to himself, "and that, therefore, the relationship between the stricken member of the family and the other members would have to be intimate." During the year, 8.70 per cent. received sick benefits and 91.29 per cent. did not. The average amount of benefits given per week was \$5.28. Nearly 16 per cent. of the patients had sickness of some sort in their homes, and 84.16 per cent. did not have. The statistics with regard to the sources of contagion show that 25.81 per cent. contracted the disease from a preceding generation, 29.37 per cent from the immediate generation, 3.55 per cent. from a succeeding generation, 8.87 per cent. from consort's family, 11.06 per cent. from fellow employees, and 4.64 per cent. from contaminated houses. Thus, over 55 per cent. gave a family relationship of some kind as a cause for their disease. Dr. Flick thinks that the percentage in reference to occupation and bad housing are considerably too low, due to the difficulty in securing information from the patient.

More than 91,000 quarts of milk were given at the dispensary to 366 patients. In reference to the dispensary, Dr. Flick thinks it is of comparatively little value as an educational institution. In fact, he minimizes the value of education in these words: "A more intimate knowledge of the subject which has come to us from experience shows us that education by itself cannot accomplish much in the prevention of tuberculosis. For effective prevention isolation of the advanced cases is necessary." There is no doubt about the necessity of the latter measure, but, education is also needed, not only to secure the needed institutional care of the advanced case, but

also to bring home to the incipient case and the non-tuberculous case the dangers that ensue from neglect to follow proper sanitary and hygienic precautions. The dispensary may not be the best center for education that could be devised, but it certainly possesses a rare advantage in the detection of unknown cases and in the training of those who come to it. Whether the incipient consumptive is as deadly with his infection as the advanced case, one thing is certain, that it would be a benefit to the public to have him trained in the proper ways of disposing of his sputum, as well as in restoring him to health.

THE GREAT WHITE PLAGUE

"The Great White Plague" * does not cover the ground so fully, is much less pretentious, and possibly for these reasons is a better book for some laymen than Dr. Knopf's more extensive work. It puts the matter in very simple and very concise form. It gives some attention to the whole field and any person who reads this book will have some idea of the whole subject of tuberculosis. The future outlook in regard to tuberculosis is very conservatively stated. No claim is put forward that in twenty or twenty-five years tuberculosis will be wiped off the face of the earth. On the whole, the book is well adapted for laymen and it is one that we would like to see every one who is interested in the subject of tuberculosis read.

* "The Great White Plague," by Edward O. Otis, Professor of Pulmonary Diseases and Climatology, Tufts Medical School, etc. Duodecimo, pages 321. Cloth, \$1 net. Thomas Y. Crowell & Co., New York.

NOTES FROM HEALTH RESORTS

ST. JOSEPH'S SANATORIUM, SILVER CITY, NEW MEXICO

On December 1st Dr. William J. Hammer, who, during the last four years, has been medical director of St. Joseph's Sanatorium, resigned his office for the purpose of spending some time in Europe in special tuberculosis studies. His successor is Dr. Oliver T. Hyde, formerly professor of medicine at Drake University (department of clinical medicine), Des Moines, Iowa, until an incipient attack of tuberculosis compelled him to come to the Southwest, where, after two years at the United States Army Hospital for Tuberculosis, Fort Bayard, New Mexico, he made a complete recovery.

On the evening preceding Dr. Hammer's departure the Sisters tendered a farewell banquet to the retiring medical director, during which Mr. Albert Leahy, acting as spokesman in

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behalf of the patients, presented him with a beautiful diamond-studded watch fob. Rev. Girard, the chaplain, in a happy speech, bade godspeed to the departing guest and welcomed the new head. In responding to the occasion, which came as a great surprise to him, Dr. Hammer cordially thanked the patients for this evidence of their esteem and also for their hearty co-operation with him in his efforts to restore them to health. He regretted that the rules of the order did not permit the Sisters to be present so that he could publicly express to them his deep appreciation of their loyal support and their self-sacrificing devotion to the sanatorium work. He then commended his successor to the patients, remarking that aside from an excellent professional training and experience, both in this country and abroad, Dr. Hyde, having formerly been ill himself, has to an unusual degree that warm, sympathetic interest in the sick without which a physician, however skilled he may be, is not capable of rendering the highest type of service to his fellow-man. Dr. Hyde then followed, with a humorous story, and later several patients proposed toasts appropriate to the hour. A splendid course dinner was served in the new dining room, which was elaborately decorated with flowers and designs in red and white, the colors of Dr. Hammer's alma mater.

NOTES FROM THE FIELD

The Plainfield, N. J., Society for the Prevention of Tuberculosis opened a tuberculosis pavilion on November 13th.

Over \$1,125 was collected in Poughkeepsie, N. Y., during the Hudson-Fulton Celebration for the benefit of the local tuberculosis camp.

If the Chicago city council decides favorably in a resolution now before it, the municipal tuberculosis commission will have \$450,000 to build a hospital.

The suggestion was recently made by Governor Shafroth of Colorado that the cured consumptives resident in that state form a "Tuberculosis Alumni Association."

Secretary and Stenographer

wishes position in a sanitarium, or as secretary to private person. Capable of doing responsible work on own initiative. Refers by permission to JOURNAL OF THE OUTDOOR LIFE.

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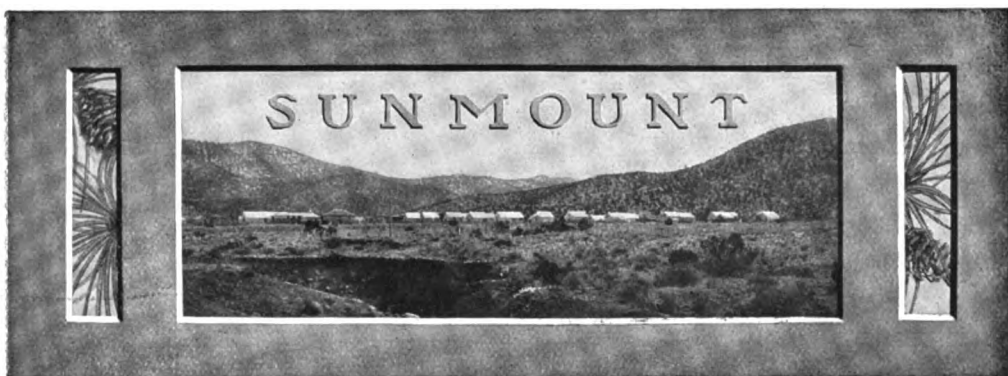
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THE PREVENTION OF TUBERCULOSIS METHODS THAT HAVE FAILED AND OTHERS THAT NOW GIVE PROMISE OF SUCCESS

BY LOUIS HAMMAN, M. D.

The knowledge of tuberculosis has become so diffused by newspaper reports, magazine articles and popular lectures that it is well nigh an impertinence to public intelligence to once more ask your attention to the subject. Matthew Arnold begins one of his delightful essays by quoting as an apology the old Greek saying, "Let us have a good thing two and three times over." If I may be allowed to interpret a good thing as an important thing I could offer no happier excuse for my temerity. You are all familiar with the well-worn figures and the oft-exhibited charts illustrating the extent of tuberculosis and the economic loss it entails. At first sight we are struck with horror at the unexpected revelation but nothing is more complacent than the indifference developed in the face of familiar danger. If tuberculosis were an unknown scourge and came suddenly in our midst with the devastation that follows in its path, we would need no Sunday health bulletins to stimulate our interest or sound the alarm. But tuberculosis is such an old friend, it has sat so long in a comfortable arm chair by our fireside, that we assume an attitude of tolerant disapproval, perhaps at times say bitter things against it, or lose our tempers with it, but are scarcely ready to make an open and determined fight. Even the high spirited who in the first moment of their impulsive indignation cry with enthusiasm, "come let us cast out this

evil thing," are surprised to find how firmly time has seated it in its accustomed place, and then bethink themselves of their affairs and pressing matters of business and forget to return to the attack. What the tuberculosis propaganda seeks to do is not to stamp facts and figures on the public mind but to infuse life into them and make them so many thousand worries and torments to prick the public conscience into action. It does not present facts and figures to be seen, but to be felt, to be made a part of us and to engender a convincing faith and a determining hope.

Now it will be a long time before this sort of moral regeneration overtakes the human race. Not even the most advanced are fully prepared for it. However, the constantly widening feeling of social and public obligation and duty as distinct from the efforts at personal and private perfection and sanctity is an unmistakable indication of the direction in which we are going. In the meanwhile the best that the tuberculosis propaganda can do is to take an active part in furthering this tendency. It wants to keep the subject before you in as many ways and from as many viewpoints as is possible. It wishes not only to give you facts but to quicken your knowledge and it hopes that perhaps in some a lively interest may grow up.

It is usual to speak of tuberculosis as being due to a seed and its successful growth

to a favorable soil. The two notions are indissolubly correlated but for descriptive purposes at least they may with advantage be considered separately. Thus in the prevention of tuberculosis there are those who see the greatest benefit to come from an attack upon the seed and others who urge us to direct our forces upon a proper readjustment of the soil. Not that I would imply a disagreement of purpose in the tuberculosis campaign, for the dissident opinions are received on every side with genial tolerance; and as all agree that there is abundant opportunity for profitable work in both directions there is little danger of energy running to waste.

Principal among those who would make war upon the tubercle bacillus are men of scientific attainment, whose mental training inclines them to deal directly with the root of the question. In stating briefly and uncircumstantially the conclusions at which they have arrived, I would not appear as lacking in reverence for the endless work the most trivial bit of evidence has cost and the splendid genius that has guided the labor to such brilliant results. The epochal work of Koch having established that tuberculosis is always due to the growth of the tubercle bacillus, vague ideas of dyscrasias and taints were dispelled. It took a longer time and more tedious investigation to bring the conviction that the disease is not directly inherited. We know that in isolated instances such direct inheritance does occur but in a general plan of tuberculosis prevention this method of spread may be completely disregarded. Practically, then, every case of tuberculosis is contracted by post-natal contact, either direct or indirect, with a tuberculous individual. When we speak here of a tuberculous individual we mean one afflicted with pulmonary tuberculosis. Other organs of the body, it is true, are attacked by tuberculosis, as well as the lungs, but disease in the lungs is not only so far more prevalent than other forms, but here too are given the most favorable conditions for the ejection of the bacilli. Bacilli are emitted in

the spray when coughing or loudly talking and in the sputum, from which they are released upon drying. Infection occurs by inhaling bacilli from these sources or by introducing them into the mouth with contaminated objects, notably soiled hands. Tubercle bacilli rapidly die in the open but may live for months under suitable conditions indoors. There is danger then in all walled spaces frequented by consumptives, particularly when they are dusty and dark, but the great danger is in immediate and intimate relation with the sufferer. In this connection it is important to state that dosage, or the amount and frequency of infection, is a determining factor, and that actual manifestations of disease may not appear until many years after infection has occurred. This is by no means the whole story, nor could I even outline it in this small space. I have, for instance, said nothing of cattle tuberculosis and the use of milk from tuberculous herds. This is a real danger but I believe the brief sketch given notes what are now looked upon as the vital points in the question.

It is reasonable, then, to assume that if we can kill all of the tubercle bacilli immediately upon their exit from the body, or at least restrict them from reaching others, we shall at once have the whole matter of prevention well in hand. The practicability of this procedure is the problem left open for discussion, and as in at least one direction zealous efforts have been made in the past ten years, we are in a position to pass a fair judgment upon the results that may be anticipated. As the consumptive is the central figure in the campaign, these efforts have been directed to making him innocuous. With this end in view we may proceed in a number of ways. We may isolate the patient under such conditions that there is no one for him to infect or we may leave him in his accustomed surroundings with instruction and supervision in the suitable mode of disposal of his sputum and the maintenance of proper relations with his family and associates. It is this second mode that has been given the more

thorough trial. Ten years ago in the city of Baltimore, under the inspiration and guidance of Dr. Osler, the work was begun. One of the medical students undertook a study of the home conditions of consumptive patients coming for treatment to the Dispensary of the Johns Hopkins Hospital. The results of the investigation presented before the Laennec Society and published in *American Medicine* is, I believe, the first contribution in this country to lay the proper emphasis upon the importance of the home in the spread of tuberculosis. You know how this idea has since then taken a firm hold upon the minds of all who have studied the problem. Acting upon these suggestions, a nurse, supported through the generosity of Mr. Victor G. Bloede, was soon appointed to visit the infected homes and instruct the patients in proper living. The task was endless, but saturated with a sense of its significance, others were soon led to furnish the means for more nurses and the movement culminated in its adoption by the State Association for the Prevention of Tuberculosis. I remember the gathering, now five years ago, of many distinguished students of tuberculosis to discuss what would be the most advisable way to use certain funds which the Association had acquired. When the question was put, what is the thing at present most needed, most likely to render return for our money, there was not one who did not unhesitatingly reply, more nurses. Since that time four nurses under the direction of the Visiting Nurses' Association have been constantly engaged in visiting the tuberculous poor of the city.

It has been a most enlightening experience for those in close touch with the work of the nurses to watch the outcome of this experiment. Certainly enthusiasm was not lacking, nor ability, nor faithfulness, so from the first it was evident that whatever the result might be, half-heartedness could not be urged against it. I shall not review the measures it was thought sufficient for the patient to take in order to protect those

about him. These are matters of every day knowledge. Suffice it to say that they are simple, so simple indeed that it was thought necessary to merely explain them to the most obtuse and furnish them with the necessary armamentarium to put them into practice, to have them at once successfully followed. Education was the slogan and the people were preached to in public and the afflicted received repeated demonstrations in private. The attack was made then upon a sound and rational principle, a principle that in the long run I believe will prove our salvation, but the practical outcome of the immense amount of labor is to have shown beyond a doubt that under such conditions as now exist education is impossible. For fear that the altogether wrong conclusion may be drawn that education has proved a failure, I emphasize again that this is just what I do not wish to have inferred. However, to the method as applied under conditions as they now are we can no longer look for any immediate and appreciable effect upon tuberculosis mortality. If the demonstration of this were the only result of all that the nurses have done, and it by no means is, it would still be worth all the energy that has been expended to ascertain it. If our principle cannot be put into practice, the matter of most vital importance is to demonstrate this clearly and promptly. Our mental vision is then cleared for action in other directions.

We come now to a consideration of isolation, which may be practiced in a number of ways. The most desirable form is the one that has received the most thorough trial and about which we can therefore speak with greatest assurance. Its object is to remove the tuberculous patient from his surroundings upon the manifestation of the earliest symptoms of the disease and keep him away until the disease has been cured, when he may return to society, no longer a menace to his associates. Here again the principle is sound, but it has met with insuperable difficulties in practice. I

am myself abashed at the brevity with which I must speak, for I am handling a crucial question from but a single standpoint and fear I may unintentionally create a false impression. No one appreciates more fully than I do the purpose and importance of tuberculosis sanatoria, but I am equally as firmly convinced that as factors in the struggle for the prevention of tuberculosis they have proved just as ineffectual as the nurses' household visits. This inference flows primarily from the fact that in a broad sense sanatoria do not cure tuberculosis. Pray remember that I am speaking in generalities and not of particular instances which may be pointed to as exceptions. With this general view and the class of patients that go to public sanatoria for treatment clearly in mind, it may be confidently asserted that pulmonary tuberculosis is curable only in its earliest stages. But there is great difficulty in recognizing the beginning symptoms, and indeed in many the disease sets in with such severity that we may truly say it has never had an early or incipient stage. As witness for the statement is the fact that state sanatoria rarely have more than twenty per cent of early cases and most of them less than ten. Allowing that we are particularly concerned with patients who have tubercle bacilli in their sputum, if we take into account only these, the percentage will fall still lower. Sanatoria, then, for the most part, treat individuals with moderately or far advanced disease, in whom the prospect of ultimate cure is indeed remote. They leave the sanatorium wonderfully improved in their general health, but with most it is only a matter of some months when hard work and the depressing circumstances of their daily life lead to inevitable relapse. The sanatorium has postponed but not averted the evil day, and as only a relatively small number of the patients lose the tubercle bacillus from their sputum, the average period of their infectiousness has been increased.

These arguments are met by the sanatorium advocates with the statement that

a residence of six months in an institution so schools a patient that, although he returns home with tubercle bacilli still in his sputum, he will strictly follow the precautions necessary to prevent all danger of spreading infection. While no doubt much is accomplished by such training, I for one do not believe that as a general rule it works out in practice. The class of patients that are treated at public sanatoria, the exigencies and circumstances of their daily life, and the facts furnished by the visiting nurses, are considerations against it. In actual practice I have seen enough instances where it has not worked. I reiterate that I am very far indeed from condemning sanatoria but from a broad, sociological standpoint it is a grave error to erect them as the first step in our struggle against the disease. We thereby do first what should come last and fail to realize the best interest from an expensive investment. Sanatoria are themselves beginning to remedy their deficiency by the establishment of industrial colonies. This movement is now in its infancy. We cannot tell what results it will develop but without question it is a step in the proper direction and its extension may possibly solve a difficult and perplexing point in the tuberculosis problem.

Notably in France has isolation been practiced from another standpoint. The method depends upon the accredited ease of infection in early childhood. The advanced consumptive is allowed to remain at home and is cared for as well as circumstances will allow, but the still healthy children are removed to appropriate institutions. In this way infection is in some instances averted or, if it has already occurred, the child is placed under the conditions which best fortify the body to resist the development of manifest disease. Indeed many believe that an infection so overcome gives the individual a certain protection, so that even if later he returns to a tuberculous environment, he may successfully oppose reinfection. Much may be said in favor of this plan; it is rational and

will no doubt bring a large measure of success, but it is hardly practicable on an extensive scale and seems to be not the most direct way of approaching the question.

The most direct and most effectual method of isolation is the removal of the advanced consumptive. Curiously enough it is just this means which we have up to the present taken least advantage of. Koch, in his address made some years ago on the occasion of receiving the Noble prize, pronounced it the most promising of all our weapons for the eradication of tuberculosis. It is true that he has more recently modified this statement by expressing the belief that equal success will follow the application of our known means of prevention in the home. Since, however, we have come to realize, upon sufficient evidence, that the plan of home visits is quite ineffectual, we must fall back upon the prior method. There can be no question that institutional or hospital care of advanced consumptives is efficient isolation, and if isolation is something worth while, this is, under existing conditions, the only way in which it can be successfully accomplished. I wish that space would allow me to detail such evidence as we possess to induce you to believe that isolation is something worth while. I should like to point as an example to what has been accomplished with leprosy in Sweden and to familiarize you with the exhaustive study of Newsholme into the conditions influencing tuberculosis mortality in England, Ireland and Wales. You must appreciate how real its significance is to trained sanitarians when you know that we have now upon our statutes a law providing for the compulsory isolation of incorrigibly negligent consumptives. This word compulsory has perhaps been effectual in raising our sympathies against any liberal application of the law. Such stringent paternalism is offensive to our notions of personal liberty. There is fortunately, however, no need for compulsion, the only demand is for opportunity. There are hundreds of consumptives in the city of Baltimore to-day who would welcome a chance to die decently, men and women with heart and sense enough to gain unutterable peace from the knowledge that those dear to

them were being spared their sad affliction. This attitude, among other things, is what the nurses' visits have engendered.

In concluding that under such conditions as exist, and not such as we would wish to obtain, the hospital is the only means of successful isolation, it remains to be said that the management and control of these institutions would offer many perplexing problems, problems that cannot be solved off-hand but which must be worked out as experience grows. The difficulties that incidentally suggest themselves are too numerous and too momentous to receive any consideration here, but I think we have a right to assume that they are not insuperable.

When we turn to our friends who are working at the soil we find that they have gained striking and pregnant ideas about the question of preventing tuberculosis. Practical men they are, with a broad view of social conditions, and their forcible arguments demand our attention. They concede that every move against the seed is a valuable attack but believe a campaign against social conditions promises a more decided victory. Careful study has shown that for practical purposes we may assume that everyone who reaches adult life has at some time been infected with tubercle bacilli. However, only a relatively small number of the infected develop manifest tuberculous disease. Time, manner, intensity and frequency of infection are factors in this difference, but their exact import cannot as yet be accurately gaged. Certainly individual susceptibility plays a large rôle, and it is this personal factor that predominates in the arguments of the sociologists. If under existing conditions infection cannot be avoided, then let us turn our attention to increasing personal resistance so that the infection may be successfully overcome.

Nothing is more striking than the regional distribution of soil favorable to tuberculosis. If you hold up one of the maps prepared by the Board of Health, upon which dots indicate the location of a death from consumption, you will immediately see how circumscribed these foci are. The underlying factor in predisposition is not then personal and individual

but collective and sectional. It must reside in the conditions of life that obtain in these different areas. A more careful view will show that, aside from the striking fertility of negro quarters, the frequency of the disease bears almost a direct relation to the wealth of the district. Tuberculosis is essentially a disease of poverty and those conditions of life that poverty induces are its most desirable soil. To particularize would be an endless task. Unteachable ignorance, lack of air and light, improper and insufficient food, overwork, worry, vice, filth and sordid care from the cradle to the grave, are some of them.

It is these conditions that our sociologists would remedy, and from what has been accomplished they take courage for the future. In the past forty years there has been an appreciable and steady falling off in the death rate from tuberculosis. This decrease began before the tubercle bacillus was discovered and long before our active campaign against the disease was inaugurated. During this period there has been progressive improvement in the living conditions of the working classes and no other apparent influence has been active. Much, very much, remains to be done, but upon this basis, and with confidence in our growing public conscience, the path of progress seems clear. The lines of activity ramify into every phase of public life. Enforcement of education, the regulation of child labor, improved building laws, the abolition of sweat shops, are instances. Perhaps at the bottom of the whole matter lies the question of wages. While I have no direct remedy to offer, I do believe that we are in a fair way towards a solution of these problems and that relief will come slowly and through remedies that faithful study and trying experience will gradually furnish.

The comment is often made that philanthropists who give money for the erection of sanatoria would better serve the cause of tuberculosis would they pay their employees a wage that might allow them to live under circumstances less favorable to its development. While literally true, this is relatively an unjust criticism. Existing social and commercial conditions lie deeper than the individual. The generous impulse

to treat employees liberally would soon leave the employer without a business and without the means to treat employees at all. No individual sacrifice, however inspiring it might be as a type of magnanimous nobility, could make an impression upon our business relations; but relief may come through coöperation of large commercial interests.

In this necessarily brief sketch I have touched upon a few crucial points in the problem of tuberculosis prevention. I have been obliged to forego the pleasure of elaboration and of pointing the correlation of the forces now at work. My only fear is that brevity and haste may have put the points in a wrong light. Nothing has been further from my purpose than to pull down what has already been done, for every activity now engaged needs to be fostered and extended. They all have important functions, but, from the experience so far gained, it is just to draw inferences for future work. What I have said is no personal crochet but represents, I believe, the attitude of a majority of those actively engaged in the campaign. The essential points are that we omit none of the factors now in play but direct our main attention to the development of hospitals for advanced consumptives and a gradual improvement in the condition of the working classes.

If there is one thing I would not appear to be, it is dogmatic. Our views of to-day will not be those of to-morrow. Experience and inference are so volatile that it is difficult enough to fix them for an instant. We can only be guided by what light we have, and earnest work will find its own path. In the meanwhile we look to the thousands of zealous scientists laboring at these problems to furnish us with new light, and the thousands of ardent social workers to gain fresh experience. Without question success will crown our efforts, but let us put the matter squarely and honestly before us. To my mind a silly optimism is to be deplored. It is too serious a question for melodramatic display. To say that tuberculosis will be eradicated in twenty-five years, or fifty years, or even a hundred years, is nothing short of deceit or conceit.

THE ART OF SITTING-OUT

BY EDWARD CUMMINGS, M. D.,

PHYSICIAN TO OUT-PATIENTS, THE HINTON HOSPITAL, HINTON, WEST VA.

I

THE REASON FOR SITTING OUT

To sit out of doors, for a certain length of time, in a sheltered place, in a reclining position, in all kinds of weather, day after

You must make a business of it—the most important business you ever put your hand to. You must make up your mind at the very start about a number of things. You must resolve to give up your work entirely and devote whatever time is neces-



READY FOR SITTING OUT

The reclining chair is first overlaid with a rug or a comfortable, and double blankets extended their full length, leaving the free ends on the floor

day—this is your paramount daily task if you have tuberculosis and wish to get well.

It is not all, of course. There are many other things you must do, and a great many things you must not do.

But the patient who masters the art of sitting out in the open air, with comfort and contentment, without fretting or whimpering or delay, has already traveled far and well upon the way to good health.

sary to taking the cure, and that you will get for yourself, at once, the things you need for sitting-out. You must resolve to stick to it day after day, and do it right or not at all. You must resolve that you will never be discouraged by back-sets, nor balk at any difficulties, nor listen to any advice that is contrary to the doctor's orders. This will make a brave start, for the mental attitude is very important. To

grudge the time given to taking the cure, to fret and whine about the days you spend in resting, thinking them wasted—this is all wrong. The man who is ill has no real business any more but the business of getting well. Until he has recovered, let him have no other enterprise, no dreams, no plans, no avocation, nor anything but the one absorbing, passionate purpose—to *get well!*

You must make a great change in your way of living, and take a bold stand. Put your business affairs away from you; let it all drop; let your employer get other help, your employees another master; quit your trade, your profession, your buying and selling, your teaching, doctoring or preaching; quit the courts and the market, the mines, and the wharves; leave the factory, the store, the bank, the shop and the street. Let others con the ledgers and keep the books and wield the implements of trade.

For your part, you must go at once into the open air, and rest there, and be cured.

If need be, let your business go to pot, for there is *no business on this earth that is worth the price of helpless invalidism and lingering death*. Put the case to yourself in this way: "I feel strong, and I am still able to attend to business. But I have this terrible disease which, if I keep on in this way, will surely kill me. The doctors tell me that by persistent treatment it can be cured, if I begin at once. Surely it is better to give up the time to it now, while yet I am not far-gone, than to wait till I am too weak either to work *or* to be cured."

Time was when everyone who had consumption took to bed only to die of it. Nowadays one goes to bed to get well.

If you have tuberculosis and do not wish to get well, but prefer to give up and die, then by all means keep on your feet doggedly at your work in the old way, and lie down only when you are too weak to stand up. But if you do not wish to give up, but would make a manly and well-directed fight for your life and restoration to health and usefulness, you must, for a certain season, lie down and rest.

Now, to rest out of doors, you must have a porch to sit on, where you are protected from wind, from storms, from heat and

glare, and public curiosity. Put up a curtain of awning canvas at the end of the porch, and part of the way in front. A regular wide awning in front is a fine thing to keep out the rain and the glare, but if your means are limited you can get on without it.

II

THE CHAIR FOR SITTING OUT

Put out on this porch a reclining chair. A rocking chair will *not* do; you must have a chair which permits you to *recline*, so that the heart may work quietly and the flow of blood to the lungs may help to heal them. There are several kinds of chairs on the market, such as the "Adirondack recliner," which has cushions, and the "Kalamazoo" chair, which is made of canvas, stretched on a wooden frame. This type of chair is low-priced and comfortable, and is self-adjusting. In almost every furniture store are found reclining chairs on iron frames, which serve the purpose well enough. Steamer chairs are used a great deal, but they are rather rigid and hence are not suitable for long hours of rest.

To sit out in summer you require no especial equipment of rugs or blankets, but to be comfortable while sitting out in winter is something of an art, and it is necessary to go about it in the right way.

There are several ways of fixing yourself in a reclining chair in cold weather. I recommend the following way because it is easy to understand and easy to do.

First, place over your canvas chair a cotton comfortable or a large heavy rug, for you must have warm stuff *under* you. This may be fixed permanently in place with tacks, or with large safety pins, especially at the top of the chair. This is for a cushion or mattress.

Then take *several* pairs of *double* blankets, lay them together, lengthwise, over the chair, from the top of the chair down over the floor at the foot of the chair. Fasten at top with safety pins. Double blankets, when extended, measure ten or twelve feet, thus being sufficient to cover the whole chair and leave half their length loose on the floor to draw up over you when seated.

After seating yourself in the chair, draw up the free ends and tuck the edges under your legs and sides. A hot water bottle,

wrapped in cloths, is placed inside the blankets at your feet. A large pillow is secured in place with tapes or safety pins. A steamer rug or fur rug may be placed over you as an extra covering.

Wear medium weight underwear, loose clothing, a sweater, an overcoat or fur coat, a hood or cap with ear tippets, or a toque; wear loose, warm shoes, and loose warm gloves.

ing gown or a loose overcoat or a fur coat. Wear a hood or cap covering the ears and neck such as a toboggan cap or toque. Your gloves should be very loose, especially at the wrist.

A woman should wear two pairs of long woolen drawers rather than extra petticoats. Loose stockings and loose warm footwear are necessary. She should wear a warm house wrapper, or any kind of a



CHASING THE CURE

After seating yourself, draw up the free ends of the blankets and tuck in at the sides. A steamer rug is placed over all

III

THE BED FOR SITTING OUT

The reclining chair is a popular piece of furniture for those who sit out of doors, but there are many who for very good reasons prefer a *bed* for resting in the open air in all seasons.

The idea is to use the bed as a big reclining chair. You dress just the same as for sitting out in a chair, wearing loose clothing, a warm sweater and a warm dress-

ing gown or a loose overcoat or a fur coat. loose one-piece house dress that does not bind anywhere.

Make up the bed with plenty of blankets under and over you, well tucked at the bottom. Stack pillows against the head of the bed for a back rest, so that you can rest partly sitting when you desire. Sheets are not necessary. Rest between blankets. Have a hot water bottle, wrapped in cloths, inside the covers at your feet.

The sitting out bed has many advantages over the reclining chair, especially in cold

weather. It is easy to slip into and out of; the covers being always in place, it requires little tucking and fixing; the most important thing of all, it gives you many restful changes of position, but you may also have a reclining chair to use when tired of the bed.

IV

THE BUSINESS OF SITTING OUT

You must address yourself to the task of sitting out doors, day after day, most faithfully. You must make it your constant occupation and stick to it as though you were paid money for it. If you do not get the idea of continuous rest firmly set in your mind you will not succeed. By rest I mean *lying down* in a bed or chair in the fresh air. You are not to spend any time in a closed room except when bathing or dressing or eating. Rest all the time. Take no exercise or work until your doctor tells you—no walking, no standing, no rambling, no riding, no driving, no house work, no office work, no chores, no trips, no visits, no knocking about, no odd jobs, no exertion of any kind. Put yourself at rest in the open air after breakfast and stay there. Do not be forever jumping up and doing little things about the house, or fetching and carrying. Every morning, sit out; every afternoon, sit out; in the evening, after supper, sit out or lie in your outdoor bed.

Do not sit up in bed if your temperature is $99\frac{1}{2}$ or over, but rest in a horizontal position. Do not entertain company if you have any fever.

Do not engage in exciting games, exciting talk and gambling or anything that makes a great demand on the mind. You may play small games like checkers or similar games, read a little, knit or sew and do things like these, but don't write many letters or keep up much correspondence. Remember that mental exercise is just as bad as physical exercise, and you must avoid both while you have fever.

You may wonder why you must do all this resting. The reason is very clear. It has been found by experience that rest in the fresh air is the best way to manage tuberculosis. Rest in the fresh air stops fever and wasting, if anything will. It quiets the pulse, it improves the appetite and digestion, it relieves the heart of extra labor, it heals

the lungs. Exercise is wholesome for healthy people, but for people with tuberculosis *with fever*, it is the same as poison.

You must not think that rest is weakening or that you must stir around to gain strength. It is most pitiful to see fevered patients taking tiresome walks when they should be resting in the fresh air in bed. If there is one thing you must learn above all others it is this: *You must rest in the fresh air until you are completely rid of fever.* No matter how long it takes, whether two months, six months or ten months, stick to this rule—make it your law—*no exercise until you are rid of fever.*

Remember always that rest is the most important thing and exercise the least important.

After the doctor has allowed you to exercise, begin with just a little each day, and every day a little more, and make it your daily practice to *return an hour before meals* and to *rest an hour after meals*. Never under any circumstances allow yourself to violate this rule.

And a half hour or hour of exercise daily should content you for many weeks. There is no danger in rest; there is much in exercise.

No matter how well you seem, no matter if you feel strong enough to pull up trees with your teeth, be careful—oh, be very careful! Many a patient who was in a fine way to get his cure, has been tempted into folly, and come back from a rough jaunt or a wild ride with the mark of death upon him.

V

THE TRIALS OF SITTING OUT

The art of sitting out is so simple that it is very hard to practice. To some people it is as easy and as pleasant as it is simple. Over-worked and exhausted patients welcome the long hours of relaxation, looking upon the day-long idleness as a sort of holiday in their lives. Others are less philosophic, less happily constituted, and grudge every hour that is not devoted to their usual pursuit. You may belong to this class of short-sighted persons and you may not, but in either case you are likely at times to find the "rest cure" a sharp trial to your patience. If you feel well (as most people do in the

beginning stage of tuberculosis) it will appear mighty hard that you are not allowed to stir about, to take long rambles, to ride horseback or to climb the hills. In the bleak and bitter winter days it may seem insufferable that you must not go into the cozy room, and shut the windows, and regale yourself beside the blazing fire. In your weariness of sitting out while others are sitting in, it may not prove difficult to persuade yourself that fresh air is not essential after all and what the doctor told you about needing it was not really important. You will, it is almost certain, find a great temptation to take liberties with yourself and the doctor's orders, and when you have done so it may not be any great wrench to your conscience to keep the fact concealed.

We are all impatient with slow results. We all want to get well in a day, or a week or month at most. We all want some black-art medicine—some wonder work, which cures while we pursue our usual daily life. Each of us thinks his case is peculiar—more complex than others, and that it is not necessary to apply the rules so rigidly in his instance. Indeed, it may appear to you at times to be absolute folly to spend your time loafing resting on the veranda while you might "just as well" be at work. It is always easy to believe that one wishes to believe.

And then your friends will come about you, too, and do all they can to worry you. Tom will tell you you are killing yourself with so much fresh air; Dick will tell you to get out and climb the hills; Harry will tell you you have no fever, because your color is so fine; and Mrs. Chick will tell you you are hipped, and should "make an effort," and to go to work. Captain Quackenbos will diagnose your trouble as "liver" and recommend a thorough cleaning out, as though you were a kind of sewer. Dr. Curbstone will advise cod-liver oil and all the exercise you can take, and Grandma Pennyroyal will assure you that you are going down hill every day, that rest is very debilitating, and if you once take to bed you are lost. You will soon find that you cannot possibly take everyone's advice. The best plan is to follow the advice of but one, and that one, for choice, should be your doctor. It is reasonable to suppose he knows what is best.

VI

THE REWARDS OF SITTING OUT

The rewards of sitting out are numerous. The greatest of all is the solid satisfaction one takes in improved health. There is nothing like the joy of witnessing daily the slow but certain benefit—of watching the fever lessening down to normal, of watching the weight coming up to standard, of finding a new taste for food, of forgetting to cough, of having your friends exclaim upon your splendid appearance. And to



A KNITTED HOOD FOR EXTREMELY COLD WEATHER

know that one is doing the best and wisest thing, and doing it *right*, is in itself a sufficient compensation for all the trials of sitting out. You learn to pride yourself upon the military precision with which you carry out the orders of your commanding officer—that is to say, your doctor. You make it a profession, this carrying out of orders, and you come in time to plume yourself upon your professional standing. And then you console yourself by remembering it is not for always that you must lead this life of enforced idleness; soon the time will come when you may walk and drive, and stray into the woods after birds, and soon

after that you will be allowed to take up some part of your burden of the world's work.

Meanwhile you will remember that you cannot have your loaf and eat it, and you cannot work and rest at the same time. A little breathing time has come to you—time to sit down and think, to broaden your views of life, and to get a nearer and perhaps a kindlier view of humanity. Perhaps your soul had of long habit cried out against the daily grind, and you had longed for a little leisure, and books and friends, and green stillness. Well, here is the time, and the leisure, and all, and it has the additional charm now of being forced on you. Do not be so great a fool as not to take a brave joy of it!

I knew a man who told me in all earnestness that the year he devoted to "chasing the cure" was the most satisfactory and enjoyable year of his mature life.

Here is a letter of his, telling how he took the cure in a bed, and what he made of the beauty of winter:

VII

THE BEAUTY OF WINTER

"I like my old reclining chair, and am grateful to it for many profitable hours of ease. But for chasing the cure in winter give me a good *bed* every time! None of your cot affairs, with sagging springs, and covers on the floor, and feet sticking out, for me! Give me a high-born *bed* sufficiently wide, with a tall head, and a level elastic mattress, and silent springs, and room to roll over!

"I have put a back-cushion of a Morris chair against the head, and a bunch of pillows. A cotton comfort and a blanket are under me, upon the mattress, and several woolen blankets and a wool comfortable over me. I lie flat, or I partly sit up, according to my humor. I wear medium underwear, a flannel shirt, a suit of loose clothing, a sweater, and a short, warm overcoat. I wear loose warm shoes, which I kick off in bed, so they are kept warm. I wear loose wool gloves, and on my head I wear a monk's hood made of eider-down, made of a piece of goods the size of a newspaper, folded once, and sewed across the top. This is gathered under the chin with a safety pin—simplicity itself!

"By exchanging this for a fur cap (a size too large), and drawing on my shoes, I am ready for my walk or drive.

"At the end of the porch I have a curtain of blue-and-white awning canvas, and part of the way across in front a low curtain of the same material, above the railing, strung on rings between wires. I push this aside when the wind is not direct. Outside, I have a fifteen-foot awning, to keep out the rain and the glare, but this is usually pulled up.

"On a shelf by the bed I have the things I need, and my books—most essays and history, for I get too much absorbed in novels, and over-do the thing. Lord Macaulay's *History of England*, now—there's a fine book for the sitter-out! It's like my sitting-out bed—easy to get into and easy to get out of, and yet, as Horace Greeley would say, 'mighty interesting reading.' And there's Stevenson, too, with his *Aes Triplex*, and Walt Whitman's *Leaves of Grass*—rare medicines for the faint heart, both.

"Most of the time I lie relaxed and easy, companioned by the troop of subtle changes in the wintry landscape and—my hot water bottle!

"A hot water bottle is, to a bed, what a blazing open fire is to a room, giving company and warmth and cheer. Well wrapped in flannel, it keeps the inside of my bed an equable temperature, and all day I breathe the keen, sweet air and consider the gray hills, pleased with the fortunes of the moment.

"All day the changes are making in the hollows and ridges and the rushing river down below—exquisite tones of purple and gray and brown, with the cold blue mountains sleeping across the west. Sometimes the sun breaks through, traveling over the hills like a lime-light, now making white and bold some bleak ridge or some cabin in a cove with a sycamore by the door, now leaving them in purple obscurity under the bending gloom of the skies. Sometimes all night it snows and the wind blows cold and hard, with the moon in a mist, and the morning comes bitter and bleak, with the fine snow driven into the wrinkled oaks.

"Sometimes the rain marches down the river and makes the land so sullen and stern and wild that the heart finds a challenge and a thrill in the very excess of gloom.

"And sometimes there comes a winter day when the season forgets its sterner vocation and lies down to sleep in the sun, and there is a brooding sense of eternity itself in the fleeting and beautiful afternoon.

"And at all times the winter is austere exquisite—more exquisite than the gaudy summer, or the poetry in books—so exquisite that the highest praise of anything fair might be to say, 'It is beautiful—it is as beautiful as winter.'

THE SECRET OF PROPER TUBERCULOSIS EDUCATION

THE SCHOOL TEACHER, THE CHILD AND THE MOTHER MOST IMPORTANT. THE PITTSBURGH EXPERIENCE

BY WILLIAM CHARLES WHITE, M. D.,

ASSOCIATE PROFESSOR OF MEDICINE, UNIVERSITY OF PITTSBURGH; MEDICAL DIRECTOR, TUBERCULOSIS LEAGUE OF PITTSBURGH

Tuberculosis education has assumed many different phases during the last few years in this country. It has usually taken the form of attempts to reach adults. It has ranged all the way from spasmodic lectures to the brass band and the phonograph. As an effective plan of education work, adult teaching has many difficulties from the side of both teacher and audience. In the main, the adult population has its mind fully made up on most subjects except those about which it knows nothing, and in this latter case it either ignores the subject or approaches it with the willingness to believe as much as it wishes, or, in the case of a small minority, to accept teaching from those who know a fair amount about it.

Teachers in the tuberculosis field, however, present the greatest difficulty. Teachers are usually physicians who do this work in part from an altruistic standpoint, in part for help towards their introduction to a city; and when the calls for work that mean money come, they grow lukewarm about the charity work. Most of these teachers, too, are voluntary assistants, and these as a rule relax in enthusiasm in their work very quickly. Their enthusiasm lasts for one or two lectures and then suddenly wanes as new interests grow up; and I have not known of a persistent and consistent voluntary educational campaign carried out with equal and equitable character for more than a single year.

With the commencement of tuberculosis work in Pittsburgh two and a half years ago, with this background of tuberculosis education in view, the necessity was felt for placing the educational activities upon some permanent and effectual basis with as little possible outlay as the efficiency allowed,

and with better results for expended efforts than in any way that work had been done before. With these objects in view, it was reasoned that several of the difficulties to be contended with in making the former kind of educational work effective were to be found in the necessity for providing halls, in the necessity for providing lecturers, and in the necessity for providing audiences. To overcome these it was felt that some place should be sought in which the hall was accessible without special preparation and charge, filled with an audience which was there for some other purpose; that the teacher's time should be paid for and controlled; and that the audience should vary from day to day and be of a sufficiently impressionable character to retain the material which was offered to its members as a mental *pabulum*.

In seeking to do this the only place which fulfilled all conditions was the school building, and this seemed the only reasonable place to carry on the work. The school building is the seat of all the education which we seek to give the embryo citizens. There seemed no good reason why the tuberculosis education in company with all other hygienic laws should not be incorporated in the regular educational life of the child.

As this idea developed, it was seen to hold all the possibilities of reaching the adults through the children, for the parents and relatives will listen to a child's chatter when they will not listen to that of a voluntary teacher, so little belief have we in pure altruism in most of our municipalities. It seemed possible also to reach, through the school children, every home in the municipality.

In carrying out the project there was a peculiar condition to contend with in the city of Pittsburgh. It was necessary to see not only the central board of education, which controlled the high schools, but over fifty public school boards which had to do with local public schools, the Bishop of the Catholic church, the superintendent of each of the separate schools and also the governors of the different private schools in the city. This meant many weeks and months of hard labor to gain permission from groups of people, who in the main, had no knowledge of the effort we were trying to make, nor any conception of its value. These interviews with the boards of control were in themselves of exceeding educational value, and by persistently working with them it was found possible at last to gain entrance into every school building, with the exception of two, in the city.

The next persons to deal with were the superintendents of schools and school teachers, but I am glad to say that in no single instance was there anything but the heartiest co-operation from the side of the latter groups. The next thing was to find one who was suitable for the work, and this we were fortunately able to do in obtaining Miss Bertha L. Stark, who for nearly a year carried on this work with the utmost success, but was under the unfortunate necessity of giving up after eight or nine months owing to poor health. Following this, we obtained Miss Charlotte A. Miller, who carried on the work with equal success and with returns in educational value which we hope to show cannot be equaled in any other plan of tuberculosis education.

The choice of one to do this work strikes me as of the first importance. One has to be well educated, conversant in a practical way with tuberculosis work, and so versatile as to speak entertainingly to groups of people from the kindergarten class to those who teach in the schools. It is a pleasure to record that both Miss Stark and Miss Miller possessed all the qualities necessary for the work.

The teacher provided by the Tuberculosis League, a charitable organization with the object of establishing a model tuberculosis organization for the municipality, first met

the teachers of the school along with the janitor, and talked over with them the general plan of the work. These meetings were held immediately after the school hours of the day. She pointed out the possibilities of the janitor's aid and the ways in which the teacher could help in this crusade, and presented each teacher with a carefully prepared pamphlet which was arranged especially for teachers with the object of helping every one of them to carry the lessons contained therein to the school children continuously throughout the year in the different classes which they held; for example, problems on tuberculosis in the arithmetic class, reading on tuberculosis in the reading class, and lessons on tuberculosis in the public hygiene class, etc.

It was then arranged that she go next day from room to room in the school, giving fifteen-minute talks to the children, from the kindergarten to the highest grade. The plan of entering each room separately has many advantages. In the first place it forms a pleasant break in the school day of the child, who is more likely to accept the lesson interjected suddenly into his sometimes monotonous life than to accept those which come in the routine of the day. The talks to the different grades have to be varied according to the age of the children, and in part according to the social status of the children in the school.

Following these talks to the children, the outline of which is given later in this article, many of the teachers gather a mothers' meeting for the locality, and the Tuberculosis League teacher returns to take up the question with the mothers. This often resolves itself into a quiz class in which the mothers conduct the quizzing of the teacher, and it is a factor of permanent educational value.

In addition to her talk with the children, and to make it of greater value, she presents each pupil with a little pictorial pamphlet which has just been prepared covering the whole ground of hygienic laws, especially those relating to tuberculosis. This the child is asked to take home and talk about at the gathering of the family, and to show the little pamphlet which is simple, pictorial and attractive to everyone. The pamphlet contains the simple laws

governing the control and prevention of tuberculosis, some simple laws of hygiene, and also a list of the city dispensaries that do tuberculosis work.

When it can be arranged with the teacher or principal, some time following the Tuberculosis League teacher's talk to the children, the time varying from a week to a year following the talk, the children are asked to write an essay on what they have heard at this lecture.

Having finished one school, the teacher carries out the same plan in the next school, arranging her work so as to cover the whole school ground in the shortest possible time.

It takes about a year and a half to cover the whole school district, but by the time this has been done, one may be reasonably sure that the work has been done pretty thoroughly, and that the lessons have reached the greatest number of people possible.

As a criterion of the value of the work it might be well to include a letter from one of the principals of the schools. This letter is one of many replies received in response to a request for opinions from the teachers by the Tuberculosis League teacher on the work she has been doing. I give also a letter written by a little girl in one of the lowest grades of one of the Allegheny Public Schools many months after the talk had been given.

December 4, 1909.

Tuberculosis League,
Educational Department.

Kind Friends:

Replying to your inquiry as to what results have accrued following your lectures in the schools, I beg to state that while you cannot measure such efforts in positive terms, yet I am certain in our community much good has resulted. The pupils seem alert to the necessity of plenty of fresh air. Teachers are awakened to their increased responsibility, and I find them constantly reminding their pupils as to the duty they owe their physical well being.

In general your lectures have been educational, and though somewhat slowly, though none the less surely, is the pulse of the public being stirred as to their duty in the matter.

When we review what has been accomplished in the last five years in combating tuberculosis, I feel we should rejoice. A

continuation of your present work to me seems to promise large results.

Thanking you for this opportunity, thus, to present my views on this question, I am
Yours very truly,

Pittsburgh, Pa., Dec. 14, 1909.

Dear Miss Miller:

In some schools that you have not been I told some of the girls what you said. One girl copied the six things what you said were: (1) Exercise; (2) Cleanliness; (3) Fresh Air; (4) Good Food; (5) Sunlight; (6) Rest. She is doing all these things to prevent tuberculosis.

She has been sickly, but ever since she has done what I told her, she is healthy. Her windows are always open.

I told her more things, and she is doing all of these. She is very glad for the things I told her. I also gave her my paper on which was how to prevent it.

Yours truly,

The outline of the talk given by the teacher is as follows:

1. Brief History of Tuberculosis.
2. Prevalence
3. The Cause of Tuberculosis.
4. The Prevention of Tuberculosis.
5. The Cure of Tuberculosis.

THE CAUSE

1. A germ which is spread chiefly by the spit of consumptives and those having tuberculosis. Many do not know they have consumption.
2. A weak body in which the germ thrives.

How the germs are scattered from spit

1. By shoes.
2. By skirts.
3. By dusty air, especially in houses.
4. By soiled handkerchiefs.
5. By drinking cups.
6. By careless coughing with open mouth.
7. By flies.

How acquired by the body

1. By breathing them into the lungs.
2. By taking them into the stomach with food, by biting the nails, putting fingers, money, pencils and other objects into the mouth.
3. By inheritance.

How the body is made weak so that the germs have a chance to develop

1. By living in impure air.
2. By over-heated houses
3. By lack of exercise,
4. By unwholesome food.
5. By impure water.
6. By late bed hours.

7. By neglected colds and other ailments—tonsils, adenoids.
8. By dissipation.
9. By careless personal habits, mouth breathing, stooped shoulders, swallowing mucus, uncleanness, especially neglected teeth.

THE PREVENTION

1. Destroy the germ
2. Build up the body

To destroy the germ

1. Spit in the gutter if on the street; here the sun and air may kill the germs.
2. If you use a spittoon, disinfect it with carbolic or lye—always keep water in it.
3. The best thing is to use rags or paper and burn them.
4. Consumptives should use spit cups that can be burned.

To build up the body

1. Fresh air night and day.
2. Sunlight.
3. Good, plain food eaten slowly.
4. Good, pure water.
5. Rest—early bed hours.
6. Exercise in the fresh air.
7. Cleanliness.
8. Cheerfulness.

THE CURE

The same as prevention, except the exercise.

Take no medicine unless advised by a good physician.

All persons who are sick should be under the care of a good physician.

This work, of course, to be of permanent value, must be of a persistent nature, and yet it seems possible in this way to gain a thoroughly educated municipality in a shorter time and with less expense than in any other known manner.

Connected with it, and thoroughly associated with it, are the great problems of tuberculosis in children, medical inspection in schools, and the establishment of open air schools and open air rooms in every school building. These problems are, of course, municipal in character, and must be carried out by the municipality in the same persistent and consistent way as it carries out all other conservative work, and not until we have gained the help of the municipality can we be said to have accomplished that for which we are working.

NOTE: The person who observes what is taught in this outline is not dangerous to those with whom he lives or works.

Usually, the man who attempts to create a revolution is the only man who suffers, and so it is that our American people are not willing to accept any attempt to revolutionize the ordinary habits of life, and those who attempt to do it are usually condemned as cranks and impossible. However, it is possible to thoroughly incorporate in the youth of our cities and counties an educational basis which will result in giving us a revolutionized and completely educated municipality at some future time.

The Tuberculosis League teacher has kept a carefully tabulated record of each school building, its principal, its enrollment, janitor, mothers, and others that have been talked to, the literature distributed to the pupils, teachers, mothers, janitors and others, with remarks about the school buildings, the number of rooms, how the floors are kept, how the sweeping and dusting is done, how ventilated, what the light and water supply is, drinking facilities, with remarks on recess and general hygienic conditions. These have been kept in the same systematic way that all our book-keeping has been done, and forms a mass of material which we hope, now that the work has been completely covered, to tabulate and put in such form as can readily be understood by all to whom copies shall be sent.

The report for the past year has been as follows:

Number of schools visited.....	68
Number of teachers hearing talks..	653
Number of pupils hearing talks....	17,711
Number of parents hearing talks..	350
Number of others hearing talks...	26
Total	18,750
Number of pamphlets distributed..	25,638

A month's report condensed is as follows:

Number of schools visited.....	9
Number of teachers hearing lecture	34
Number of pupils hearing lecture..	1,493
Number of parents hearing lecture.	30
Number of others hearing lecture..	5
Number of pamphlets distributed...	3,012

We feel after two years of this work that nearly all the possibilities that have been opened in Pittsburgh to arouse an interest in tuberculosis have been more or less traceable to this school work, placing it far ahead of the other lectures that have been given to adults and specially gathered audiences.

ITALIANS FIGHT TUBERCULOSIS

BY R. L. BREED,

ASSISTANT SECRETARY, COMMITTEE ON THE PREVENTION OF TUBERCULOSIS
OF THE NEW YORK CHARITY ORGANIZATION SOCIETY

One of the most significant social movements now under way is that of the organization of a committee of prominent Italians for the prevention of tuberculosis among the Italian people of New York City. This committee is composed of some

pose, the overthrow of tuberculosis among the inhabitants of our "Little Italies." And this "Little Italy" is not so little, after all, for there are more Italians in New York City than in any other city in the world, except Naples and Rome, and tuberculosis



A CONGESTED STREET IN THE ITALIAN QUARTER OF NEW YORK

of the most influential members of the Italian-American colony, physicians and scholars trained in Roman Universities, business men who have attained eminence and wealth in their adopted country, together with prominent social workers in the Charity Organization Society. These are all uniting their energies to one great pur-

has been one of the gifts of our western shores to these children born under the Italian skies.

No log-book can tell the distance these Italians have come, for they have not alone left behind them 6,000 miles of the earth's circumference, but they have moved from under Italy's southern skies to New York's

overcast firmament; from scattered villages, where they and their ancestors have lived, into great tenement dwellings, with little opportunity for light and air; from God's out-of-doors into the congested and artificial life of lower New York; from work on the land, with plenty of fresh air, they are now, by the thousands, laboring *beneath* the land, in tunnels, subways or mines, in the pressure of two or three atmospheres. These facts make clear one of the too often overlooked phases of Italian immigration, the effect upon the Italians themselves.

Whatever be the facts about the "Black Hand," there is no doubt at all as to the existence and the power of the "White Plague" among the sons of Italy. Physicians and social workers understand that vast numbers of young Italians who come to our American cities and labor in factories or sweatshops are destined to illness and at least one-third of them, under present conditions, to death from tuberculosis, for death and disease are always more prevalent among rural people settled in the cities than among city-born people themselves. The immigration reports show that the largest percentage of the Italians coming to our shores are between the ages of fourteen and forty-five years. Thus the period of the greatest prevalence of tuberculosis among all races, from fourteen to forty-five years, exactly coincides with the age of the majority of Italian immigrants.

The Italian laborer brings health, strength, often sturdy youth, and is capable of undertaking our hardest work, but living under unhealthful conditions and working in labor camps, which are sometimes unfit to shelter human beings, he easily contracts tuberculosis and becomes either a source of menace to the public health or a center of infection. The "fatigue of the shovel" and the pickaxe, combined with the great passion to save every penny, in order that the rest of the family may be brought over, soon renders the young Italian a prey to tuberculosis. Too often but six months' life in the tenements, or in the construction camps, suffice to turn the sturdy youth of Calabria, the brawny fisherman of Sicily, the robust woman of Abruzzi, into the pale, flabby, undersized creatures of whom we see so many in "Little Italy." For among the Italians, as among other peoples, the

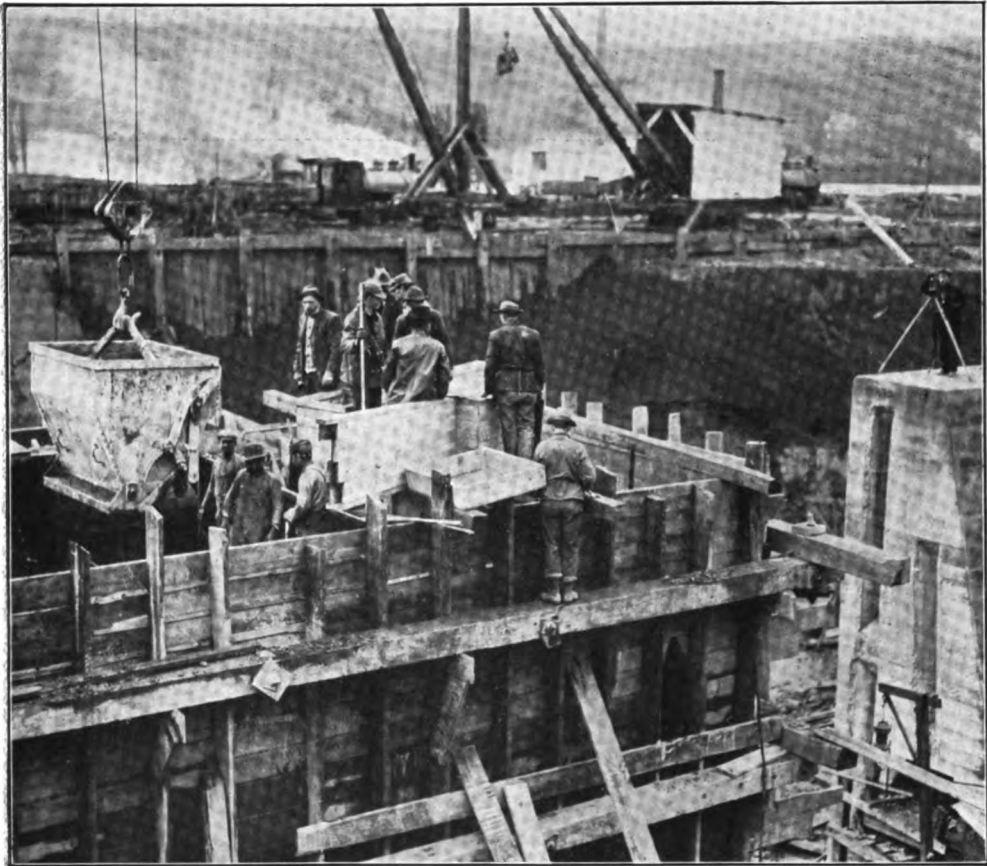
death rate from tuberculosis is in inverse ratio to their individual incomes. But awakened America is beginning to appreciate these children of Italy, who have come to her in such throngs, and is beginning to understand how much this "Melting Pot" of America needs this southern stock, with its love of beauty and grace, in addition to its German, Irish, French and Swedish elements. And so this new committee has been formed to undertake the work of saving these vastly capable Italians from the scourge of tuberculosis.

Because the Italian colony is made up of emigrants from every province of Italy, from the Swiss Alps to Southern Sicily, the committee is composed of business and professional men who were born, some of them, one thousand miles apart over in the old country. The committee has for chairman, the Hon. Lloyd C. Griscom, who, during his term of service as American Ambassador at the Quirinal, greatly endeared himself to the King and the Italian people, especially through his masterly organization and direction of the agencies of American relief sent to the sufferers of the Messina earthquake. The vice-chairman of the committee is Cav. Dr. Antonio Stella, President of the Italian Medical Society, Vice-President of the Society for Italian Immigrants, and Director of the Morgagni Tuberculosis Clinic of the Italian Benevolent Institute. It is largely due to Dr. Stella's initiative and work that the decision was made to hold the next meeting of the great International Tuberculosis Congress at Rome, Dr. Stella having been the special representative of the King of Italy at the congress held in Washington last year.

The Italian Government is represented by Dr. G. Di Rosa, Acting Consul-General at New York, and Cav. Prof. Bernardo Attolico, Italian Inspector of Immigration for the United States. Dr. Attolico is a doctor of laws from the Roman University, and was a member of the first national committee on tuberculosis inaugurated by Prof. Durante of the Chair of Surgery in the University of Rome several years ago. Cav. Gino C. Speranza, an Italian lawyer, a member of the State Commission on Immigration appointed by Governor Hughes, and especially well versed in all problems relating to immigration, is one of the interested men in this movement.

Mr. Lawrence Veiller, the Director of the Department for the Improvement of Social Conditions of the Charity Organization Society, under whose management the International Tuberculosis Exhibition was held last year the Museum of Natural History, and who, supplementing the work of the Health Department of the City of New

The committee plans to divide the Italian colony into districts, disseminate information concerning tuberculosis through circulars and pamphlets, and, through the distribution of the very attractive Venetian poster, notify the Italians in each district of the location of the nearest tuberculosis clinic. The committee expects to under-



ITALIANS EMPLOYED ON CAISSON WORK IN NEW YORK. MUCH OF IT IS FAR BELOW THE SURFACE AND UNDER ENORMOUS AIR PRESSURE

York, has been especially active and efficient in all social, non-medical movements looking to the control and elimination of tuberculosis in the city, is one of the founders of this committee. Until an Italian secretary has been found, Mr. Frank H. Mann, Secretary of the Committee on the Prevention of Tuberculosis of the Charity Organization Society, will serve as acting secretary.

take a campaign for the better ventilation of the homes and workshops of the people; to furnish a weekly press service to the Italian newspapers; to establish lectures, illustrated with stereopticon slides, before the Italian churches, clubs and labor organizations; to hold tuberculosis exhibitions in the heart of the Italian colony, and to pursue investigations into the peculiar needs of the Italian tuberculous poor. It will also

undertake the establishment of special clinics, the appointment of Italian physicians and nurses, etc.

This committee of men representing the Italian Consulate, prominent importers, leading physicians and specialists, great contractors and social workers, determined to eliminate tuberculosis from the ranks of the Italian colonists, must have not simply the support and sympathy of the Italians

nence, if they be met with kindness and helpfulness.

An intelligent Italian workman summed up his fellow immigrants' needs the other day as "a chance to work and kindness." New York, which has furnished these rural Italian laborers with crowded tenements in which to live and bidden them work in tunnel, aqueduct or mine, now realizes that the thousands of the new comers are de-



THE ITALIANS WORK IN ITALY UNDER CLEAN, HEALTHFUL CONDITIONS

themselves, but also the heartiest co-operation of all Americans in whom the love of true democracy exists. It hopes to set the ideal for less talk and discussion with regard to "the problem of Italian Immigration" and for more active and organized effort in their behalf; less oratory against "the foreign peril" and more active friendliness; for it believes that these who have already contributed so largely to our material greatness are destined to make large contribution to our intellectual pre-emi-

serving of something better. And it is very likely that this Committee on the Prevention of Tuberculosis Among Italians, in ministering to the needs of the Italian tuberculous poor, will bring to the larger country not only a vivid realization of the Italians need of our strength and sympathy, but also of our own great need of those elements which these Italians, fresh from the sunny hills and green fields of Tuscany and Sicily, may furnish to our civic character.

Little Lights

BY STEPHEN CHALMERS

THE GILDING-STAR.

There is a sea—a quiet sea
Beyond the farthest line,
Where all my ships that went astray,
Where all my dreams of yesterday,
And all the things that were to be,
Are mine!

There is a land—a quiet land,
Beyond the setting sun,
Where every task in which I failed,
And all wherein my courage quailed.
Where all the good my spirit planned,
Is done!

There is a hope—a quiet hope,
Within my heart instilled,
That if, undaunted, on I sail,
This gilding-star shall never pale,
But shine upon my labor's scope,
Full filled!

And there's a tide—a quiet tide
Flowing toward the goal—
That sweeps by every human shore,
And at its fullest ebbs no more;
And on that final swell shall ride
My soul!

THE TOILERS.

Dreams—dreams—dreams!
Of the things that we yet may do,
But the present pain seems an endless
chain,
Real and true.

And some of us dream of temples,
While the roof sags overhead,
And some of the gold that a witch fore-
told—
While we fight for bread.

Dreams—vain dreams!—

Of the things that we yet may be;
Yet the worst and best have gone
to rest,
As so shall we.

And some of us dream of glory,
While the sword hangs by a thread,
Of a little fame, a remembered name,
When we are—dead!

And none has returned to tell us
If dreams may alter Fate;
Yet we toil and try, bequeath and die.
The rest—can wait!

SNOW.

Froth on the sea.
Mist on the lea.
White on the hill,
Clear-cut and still.
Frost on the sedge.
Drifts on the ledge.

Prismatic beams where the window-
pane gleams,
And silence!

Foam that flies,
Flutters, and dies
Softly to sleep;
Or, as the winds sweep,
Races and chases and traces its graces
With fantasy's ease on the stiff, bare
trees,
In silence!

Voices so clear.
Whispers so near.
Shadows appear
And go,
Out of the night,
Into the light—
Into the bright and shimmering white
Of the snow.
Hurrying—gray—
Passing away,
In silence!

Journal of the Outdoor Life

OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS; THE KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION; THE PENNSYLVANIA SOCIETY FOR THE PREVENTION OF TUBERCULOSIS; THE NEW HAVEN COUNTY ANTI-TUBERCULOSIS ASSOCIATION; SARANAC LAKE SOCIETY FOR THE CONTROL OF TUBERCULOSIS; PROVIDENCE, R. I., LEAGUE FOR SUPPRESSION OF TUBERCULOSIS; ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS OF THE DISTRICT OF COLUMBIA, JACKSONVILLE, ILLINOIS, ANTI-TUBERCULOSIS SOCIETY.

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The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

A CHANGING POINT OF VIEW

We have commented before on the changing ideals of the anti-tuberculosis campaign and have laid emphasis upon the fact that measures which some years ago were looked to to wipe out the disease with considerable expedition are now regarded as entirely inadequate. With growing experience there has come a shift in point of view which is very clearly brought out in an article in this issue on the Prevention of Tuberculosis by Louis Hamman, M. D., of the Johns Hopkins Hospital. The ideal upon which Dr. Hamman lays most stress is that of the treatment of open cases of tuberculosis in institutions where there will be no possibility of spreading infection to others. The grounds upon which Dr. Hamman bases his conclusions are interesting. The Instructive Visiting Nurse Association of Baltimore believed that through supervision of patients and other education it would be able to render them of no

danger to the community. In this it has apparently failed. Accordingly, the anti-tuberculosis workers in Baltimore are strongly arrayed in favor of institutional care and because of the very excellent reputation which their hospitals have won, the patients themselves are now anxious to enter them.

The willingness on the part of the Baltimore patients, who constitute perhaps the best educated municipal body of indigent tuberculosis sufferers in the country, to enter the institutions, is especially significant as indicating the possibility of clearing the scene of an apparently inevitable dread of so-called isolation.

This positive expression of Baltimore's point of view is particularly striking as a practical confirmation of some of the most salient theoretical conclusions presented by Newsholme and others at the last International Congress on Tuberculosis.

THE QUESTION OF EMPLOYMENT

Dr. Lyman of the Gaylord Farm Sanatorium recently struck a new note in the matter of the employment of tuberculosis cases who must return to the work of earning their own living, when he showed that careful statistics based upon the experience of the Gaylord Farm Sanatorium indicate that patients who after discharge endeavored to take up new employment to which they were unaccustomed fared considerably worse than those who returned to their original occupations. We understand that a similar conclusion has been reached by those in charge of the Sprain Ridge Sanatorium in Yonkers. Should these conclusions be borne out by experience in other institutions it will prove a real

contribution to the great problem of after-care which has long baffled every body of anti-tuberculosis workers in the country.

It would seem that the shock of adapting one's self to a new occupation tends to outweigh possible advantages in the nature of the work. On the other hand, the lesson of keeping well above all things else as acquired at the sanatorium, with the caution it carries in its train, would indicate a possible adaptation to what were previously dangerously unfavorable conditions.

A discussion of the results of the Gaylord Farm investigation by Dr. Lyman will be published in a later issue of the JOURNAL OF OUTDOOR LIFE.

THE PREVENTION OF TUBERCULOSIS AS A BUSINESS INVESTMENT

The application of the Metropolitan Life Insurance Company for permission to purchase land and erect a hospital for the treatment of its employees who contract tuberculosis, which was originally denied by the Superintendent of Insurance in New York State, has been referred back to the Superintendent by the Appellate Division of the Supreme Court of the State in accordance with a unanimous decision of the Court that the matter is within the discretion of the Superintendent of Insurance. The reasoning on which this decision was based we print in another place, but call attention to it here because the

spirit of the decision is of vital importance to every employer whether his employees number two or three persons or many thousands. It is a recognition of the fact that all production is co-operative in the highest sense, and that the interest of the employer in the employee does not end when the employee lays down his work for the day, but rather extends to the minutest details in the workman's life, welfare and health.

We trust that the interesting experiments of this company will lead to a thorough testing and discussion of the possibilities of invalid insurance in this country and particularly as it bears upon tuberculosis.

NATIONAL ASSOCIATION

EDITED BY PHILIP P. JACOBS, ASSISTANT SECRETARY

CONSERVATION AND HEALTH IN SOUTH CAROLINA

Conservation of Public Health in South Carolina will be the theme of a State Conference to be held at Columbia on February 21st and 22d. The Conference will be held in connection with the American Tuberculosis Exhibition and simultaneously with the session of the State Legislature. The program will include the following subjects: The Economic Loss to South Carolina from Preventable Disease; The Need of Public Health Education; The Regeneration of Child Life in the South Through Modern Research Methods Applied to Education and Labor; Tuberculosis, Communicable, Curable, Preventable; Responsibility of the Physician as Seen by a Layman; Responsibility of the Physician as Seen by the Physician; Legal Powers and Responsibilities of Health Officials; Methods of Administration and Financing Health Work; Responsibilities and Opportunities of the People as Regards Public Health; Hook Worm Discussion; Typhoid Discussion; Eradication of Malaria by Drainage.

Each discussion will be opened by an expert of national prominence. In view of the present interest in matters pertaining to public health and conservation in the South and other parts of the country, this conference promises to be one of unusual significance.

INSURANCE AND TUBERCULOSIS

Approval has been granted by Supt. Hotchkiss of the New York State Insurance Department to the application of the Metropolitan Life Insurance Company to purchase land for the purpose of erecting a sanatorium for the treatment of tuberculosis among its employees.

The company's original application was denied by Supt. Hotchkiss on the ground that such use of company funds would be contrary to the insurance law, which prohibits insurance companies from purchasing real estate except that necessary for the

transaction of their business. The Appellate Division of the Supreme Court has decided that the matter was within the discretion of the Superintendent of Insurance, who has accordingly granted the application.

The decision of the court referring the question of the application back to the Superintendent of Insurance marks a distinct advance in social legislation and in the recognition of the duties an employer owes to his employee. In brief, the decision distinctly recognizes the principle that any business corporation may increase its revenues and efficiency by treating its employees in a humane manner.

Justice Kellogg, who writes the unanimous decision, says in this connection:

"The duties of the employer to the employee have been enlarged in recent years, and are not merely that of the purchaser of the employee's time and service for money. The enlightened spirit of the age, based upon the experience of the past, has thrown upon the employer other duties, which involve a proper regard for the comfort, health, safety and well-being of the employee. A corporation may not only pay to its employee the actual wage agreed upon, but may extend to him the same humane and rational treatment which individuals practice under like circumstances. It must do this in order to get competent and effective service. These acts are not to be defended upon the ground of gratuity or charity, but they enter into the relation of the employer and employee, become as it were a part of the inducement for the employee to enter the employment and serve faithfully for the wage agreed upon, and become a part of the terms of employment. The considerate employer who treats his employees well is thus able to secure better service, and upon more satisfactory terms, than the unwilling, illiberal employer. A corporation with 13,280 employees is called upon to exercise great care in selecting and managing them so as to receive the best service. The employment,

training, disciplining and managing such a force, and obtaining from it the best results, is an important part of the relator's business. It is well within the corporate power to assume, as it has done, the care and treatment of such of its employees as are afflicted with tuberculosis. If we assume that the company has the legal right to care for and assume the treatment of its employees so afflicted, it must follow that it has the right to do this in the most economical and most effective manner. I think the company has the right to care for and treat its employees so afflicted, and may do this in the manner which promises the best result to the patient and consequently to the company itself. The power of the company to rent premises for such treatment and care is, I think, beyond question, and if so, it is for the reason that the premises are so used for the convenient accommodation of the company in the transaction of its business. The same reasoning permits the purchase of real estate upon which the company may maintain a hospital for that purpose."

The Metropolitan plans to erect a sanatorium accommodating about 100 to 150 patients. An option on a 250 acre site has been secured, and work will be pushed as soon as possible.

Speaking recently before the Insurance Institute at Montreal, on the subject of "The Tuberculosis Dispensary as an Economic Factor in Insurance," Lieut. Col. J. H. Burland presented some interesting facts and figures showing the yearly losses in revenue to insurance from the excessive mortality and incidence of consumption and the necessity for taking immediate action by co-operation with existing remedial agencies. He said:

"Assuming one-third of the number of persons rendered ineligible for insurance by tuberculosis to be wage-earners, and allowing \$500.00 as the average earnings to the working-man who dies, of which 5 per cent would be devoted to insurance, the cash loss in insurance premiums on account of tuberculosis in Canada is computed to be about \$885,500 per annum. This loss is apart from the losses on accepted risks which become claims through tuberculosis.

"One Canadian company has paid out in the ten years ending 1907, in claims through consumption, one-quarter of the total amount paid for all claims in the same period. Another company supplies figures showing that in five years ending Nov. 1st, 1905, nearly one-eighth of the whole amount paid in claims was from tuberculosis."

AMERICAN SANATORIUM ASSOCIATION'S MEETING

The regular semi-annual meeting of the American Sanatorium Association was held on December 21st, in New York. One of the most important items of business attended to was the amending of the by-laws so that the election of officers will be held hereafter at the spring meeting instead of at the December meeting.

The subjects discussed were: "The proper dose of fresh air;" "Advice to patients as to subsequent employment;" and "How are we to keep down the per capita cost in the face of the increasing cost of supplies."

The second paper on the employment of apparently cured and arrested cases, by Dr. David Russell Lyman, brought out the interesting fact that the great majority of cases fare better after leaving the sanatorium if they continue their original employment. Dr. Lyman showed that, strictly speaking, "light outdoor employment" was a delusion in most cases. The worry incident to leaving a new employment and the frequently lower compensation more than overbalanced any evils of the return to the patient's old job, particularly if this work was not under unsanitary or unhygienic conditions. He showed by statistics of patients who had left Gaylord Farm Sanatorium that out of 71 incipient cases only 11 per cent of those who returned to their original work failed, while 40 per cent of those who took up new work failed. Of the moderately advanced cases who went back to work, 21 per cent of those who took up their old work failed while the percentage of those who took up new employment and failed was 31 per cent.

The consensus of opinion seemed to be that the discharged tuberculosis patient is not injured so much by what he does during working hours as by the things he does

or does not do at night and on Sundays and holidays.

In the discussion as to the cost of maintenance the opinion prevailed that just as good results could be secured by using less expensive diets, provided the same general amount of nourishment was provided.

Those present at the meeting were Dr. H. W. Goodall of Stony Wold Sanatorium; Dr. E. S. McSweeney and Dr. Walter Rathbun of Otisville Sanatorium; Dr. S. Rosenberg of Montefiore County Sanatorium; Dr. I. Gluckman of Newark; Dr. David R. Lyman of Gaylord Farm Sanatorium; Dr. S. Wickes Merritt of Epstein Sanatorium; Dr. A. M. Forester of Louisville Municipal Sanatorium; Dr. H. M. King of Lommis Sanatorium; Dr. F. L. Hills and Dr. James Lyon of Massachusetts State Sanatorium, and Dr. H. B. Dunham of New Jersey State Sanatorium.

CINCINNATI'S TUBERCULOSIS FORCES UNITE

Unification of all the forces which have been separately battling against tuberculosis in Cincinnati has been completed by the announcement of the merger of the Day Camp Association with the Anti-Tuberculosis League. The crusade against this disease will be given greater impetus by the new movement, which will systematically cover the entire city.

Cincinnati has been in the peculiar position of having a full equipment for a systematic anti-tuberculosis campaign, but with little or no co-operation between the independent units and with absolute hostility in some instances. The city has conducted a municipal sanatorium for several years. The Anti-Tuberculosis League has done education work. The Day Camp Association has conducted a camp and given relief to tuberculous cases. The Board of Health has conducted a dispensary and has made some attempt at systematic registration of tuberculosis cases. No two of these bodies, except the League and the Board of Health, worked in co-operation with each other, and as a result, only the merest beginnings of systematic work has been attempted.

At the instigation of the Cincinnati Academy of Medicine, and through a committee of that body, the co-ordination of these various forces was affected. Under the municipal code, the director of public safety had control of the hospitals and directed them through the hospital staff. The committee has practically arranged with Director Small to delegate the control of the tuberculosis hospital to the Board of Health. The Anti-Tuberculosis League has been working with the Board of Health all the time and will continue to do so. Arrangements were made so that the tuber-

culosis clinic will come directly under the management of the Health Board in harmony with the other departments.

The final step in the merger was the absorption of the Day Camp Association into the League. The Day Camp at Sweetwine is to be discontinued and the \$5,000 assets of the Association are to be spent in relief work under the League.

The new Board of Directors of the League gives full representation to all the different elements and assures harmony.

The Board of Health thus becomes the municipal center for anti-tuberculosis work, with the Anti-Tuberculosis League co-operating in the educational campaign. Ample funds are at hand, and the largest possible results should be secured from this unification.

NEW JERSEY'S TUBERCULOSIS RECOMMENDATIONS

As the concluding part of their labors, the New Jersey State Tuberculosis Commission submitted to Governor Fort on December 17 a series of recommendations embracing a comprehensive campaign against tuberculosis. This commission was authorized by the legislature of 1909, and in October conducted a large public meeting at Trenton, at which much enthusiasm was aroused. The following recommendations express the results of the meeting and the labors of the commission:

1. That the facilities at Glen Gardner be increased by the addition of moderate price shacks.

That provision be made at Glen Gardner for arrested cases, as at Eudowood Sanatorium, Maryland, by converting one of the farmhouses into a residence for them, or by the erection of inexpensive buildings for their accommodation, the patients to do farm or other work in connection with the institution, thereby being self-supporting, until a cure is assured.

That an appropriation of \$5,000 be made for the erection and equipment of a separate shack at Glen Gardner for the care of tuberculous children, of whom there are at present in the institution 17 under 16 years of age. Also that provision be made for school instruction for these children.

That the Board of Managers of Glen Gardner, in order to save the State unnecessary expense, be advised to authorize a most careful investigation of the financial status of every patient admitted with a view to making every one, able to do so, pay according to his own, or his family's ability.

2. That the Legislature appropriate \$25,000 for tuberculosis work in this State, the agent for carrying out the work to be the State Board of Health, the appropriation to be available by the said Board.

3. That the State Board of Health shall use this appropriation for educational and practical purposes:

a. In the publication and distribution of literature, regarding this disease.

b. In the creation and maintenance of a State Tuberculosis Exhibit, which shall be at the disposal of all communities in the State applying for its use locally.

c. In the maintenance of a special Tuberculosis Inspector, whose duties shall be to enforce existing laws concerning registration of tuberculous cases, to advise local boards of health, concerning disinfection, to inspect hospitals and sanatoria treating tuberculous patients, to report on same to the State Board of Health, and to perform such other duties as may be ordered by said Board.

4. That the State Board of Health take up the question of the need of rural nurses to do educational and practical work in communities specially designated.

5. That the State Board of Health, if granted above powers, accept the co-operation of the New Jersey Association for the Prevention and Relief of Tuberculosis, and that these bodies work together.

6. The commission favors the establishment of county hospitals for advanced and incipient cases at county expense, as has been done in New York, according to an act of the last Legislature, and the establishment of municipal hospitals and sanatoria for advanced and incipient cases at city expense. It does not favor a single State hospital for advanced cases.

It recommends that the need of further provision for advanced cases be carefully considered by the State Board of Health, and that the place and number of hospitals be designated by that body.

7. The commission recommends, on the part of municipalities, provision for arrested cases and those discharged from public institutions, such provisions to be in the form of inexpensive shacks in which patients can live comfortably at moderate cost, and continue their usual pursuits of life.

The members of the commission are: Rev. James A. McFaul, Chairman, William C. Smallwood, Secretary, Dr. William Gray Schauffer, Mrs. Sidney M. Colgate and Mrs. Wm. S. Stryker.

MICHIGAN STATE TUBERCULOSIS SOCIETY MEETS

Teaching sanitation in the public schools, and the need for county tuberculosis hospitals were the two topics that received most attention at the annual meeting of the Michigan Association for the Preven-

tion and Relief of Tuberculosis held on December 18th in Ann Arbor.

The State of Michigan has had a law for 14 years requiring the teachers of the public schools to give instruction on hygiene and sanitation and particularly about tuberculosis. The State Board of Health is required to furnish the teaching material. The discussion developed that the failure to teach these subjects was due to a lack of time in the curriculum, a lack of training on the part of the teacher, and in some measure a lack of proper teaching material furnished by the State Board.

The discussion in reference to the need of county tuberculosis hospitals was centered about the desirability of having these local institutions or larger state hospitals. The former plan was generally favored.

The officers elected were: President, Dr. Victor C. Vaughan, Ann Arbor; First Vice-President, Dr. Guy Kiefer, Detroit; Second Vice-President, Dr. E. T. Abrams, Dollar Bay; Secretary Dr. A. S. Warthin, Ann Arbor; Assistant Secretary, Miss Carol F. Walton, Ann Arbor; Treasurer, Dr. H. J. Hartz, Detroit.

COMPLETE PENNSYLVANIA'S SANATORIA

Plans have been prepared for the construction of the buildings that are to complete the State Tuberculosis Sanatorium at Mont Alto, and the State Health Department is asking for bids on the work.

Forty-nine cottages are to be erected in addition to eleven pavilions, nurses, and physicians' buildings, a children's building and a central heating plant. Alterations and additions are to be made also to the dining building and the infirmary. It is expected that the work will be started soon after the contracts are let. Plans are also being prepared for the western sanatorium, which is to be constructed on the mountain track at Cresson which Andrew Carnegie presented to the State.

With the capacity of the Mont Alto Sanatorium increased to nearly 1,000 beds, and the new institution at Cresson, Pennsylvania will have nearly 1,500 beds provided by the State for tuberculosis cases.

DISPENSARIES AND THE POOR

Some statistics based on a total of 9,363 patients examined in the 17 months, ending December 31st, 1908, at the Pennsylvania State Tuberculosis Dispensaries show that the average family income in the home from which these patients came was \$24.63 per month. The average number of persons in the family was 4.38, and the average per capita income \$5.60.

In 2,404 cases there was reason to believe that the disease was contracted in the home from another member of the family. In

474 cases the possible source of infection was a fellow employee.

DELAWARE'S TUBERCULOSIS CAR

The Delaware Tuberculosis Commission has had fitted up at the Wilmington shops of the Pennsylvania Railroad Company a passenger car which will carry a modern exhibit to every town along any railroad line in the State.

The car will be painted white, inside and outside, and on the interior will appear in large gilt letters: "Delaware Tuberculosis Commission." Below will be the Red Cross emblem and the words: "State Dispensary Exhibit."

About February 1st, the car will be ready to start on a tour of the State. An experienced demonstrator will be in charge. Previous to sending out the car, the exhibit will be shown at 713 Market street, Wilmington.

The Commission is establishing a series of dispensaries in different parts of the State, and is also planning an extended educational campaign.

NEW PHYSICIAN AT EUDOWOOD

Dr. Martin S. Sloan has been chosen as successor to Dr. A. M. Forster, formerly resident physician at the Eudowood Sanatorium at Towson, Md., who has resigned to take charge of the entire tuberculosis campaign in Louisville, Ky. Dr. Sloan was formerly assistant at Eudowood. He has been serving for several months at the Association Sanatorium at Louisville, since the resignation of Dr. G. W. F. Rembert.

RAILROAD MOVES SANATORIUM

Several months ago, when the New Orleans and Great Northern Railroad discontinued the use of a spur track to St. Tammany Station, La., the sanatorium of the Louisiana Anti-Tuberculosis League was left practically stranded in the forest. After a series of conferences, an adjustment of difficulties has been effected. The railroad has agreed to give the sanatorium a new site on its main line and will also move all of the cottages without cost to the League. The new site is superior to the old one and has good drainage and other natural facilities. The railroad will also furnish an artesian well for the sanatorium.

NEW GEORGIA STATE ASSOCIATION

Growing out of the Committee on Tuberculosis of the Medical Association of Georgia, the Georgia Anti-Tuberculosis and Sanitary Society has been formed. The Society is unique in one particular in that it makes provision, in addition to individual memberships, for membership of cities, colleges, lodges, unions, churches, clubs,

factories, and other corporations. The Society starts out with over 500 members. The secretary of the Society is Dr. W. C. Pumpelly of Macon.

CANADIAN WAR ON TUBERCULOSIS

After voting \$5,000 as a subvention to the Canadian Association for the Prevention of Tuberculosis, the lower house of Parliament passed a resolution calling upon the Government to take additional steps in the checking of tuberculosis. The resolution was argued on the question either of the Government itself carrying on a systematic campaign against tuberculosis, or else of the granting of a much larger appropriation to the Canadian Association for this purpose. The resolution did not specify the amount to be given, but in view of the fact that the vote was unanimous, a liberal grant is looked for. The consensus of opinion was that an effective campaign against tuberculosis should include compulsory physical examination of school children and civil servants, and registration of tuberculosis, with provision for the isolation of dangerous cases.

NEW SANATORIUM IN QUEBEC

The first annual report of the Laurentian Society for the Treatment and Control of Tuberculosis, which was organized in October, 1908, for the purpose of conducting a tuberculosis sanatorium at St. Agathe des Monts, Quebec, shows that a considerable amount of work has been done. The plans for a modern sanatorium have been drawn and \$70,000 of the \$100,000 needed to build it has been subscribed. Of the money thus far subscribed Lorne D. McGibben has given \$50,000. The sanatorium is situated on a 60-acre farm near St. Agathe des Monts, and will accommodate forty patients.

A TRAINING SCHOOL FOR CONSUMPTIVES

The Health Committee of the Huddersfield, England, Corporation have recently opened a pavilion at their Sanatorium for Infectious Diseases at Dalton for the training and treatment of early cases of pulmonary tuberculosis. There is accommodation for eight or ten cases. It is not proposed to attempt to keep cases until the disease is fully arrested or cured, but cases in the early stages of the disease will be received for a period of about a month. They will be trained to lead a hygienic life, to appreciate the advantage of an open-air life, night and day, and to take the necessary steps to protect their relatives, friends, and fellow-workmen from any danger of contracting the disease. While this is going on the relatives at home will have

an opportunity to thoroughly clean and purify their dwellings and particularly the bedroom where the patient sleeps. They will also be able to secure a rest and to recuperate from the trying duties of nursing. The cases received will be carefully selected, and preference will be given to young adult male wage earners.

Several other cities of England are trying similar experiments with excellent results.

NATIONAL TUBERCULOSIS ASSOCIATION IN INDIA

India has not been neglected in the word-wide campaign against tuberculosis. The Consumptives Homes Society, recently organized in Bombay, is a national association, which aims to educate the people of India on the methods of curing and preventing tuberculosis and also to provide institutions for the treatment of this disease. The society will establish a sanatorium at Dharmpur in the pine forests of the Himalayan Mountains. Thirty-five thousand

rubles (\$11,500) has been collected for this sanatorium. The elevation is nearly 5,000 feet.

Although accurate statistics cannot be secured, the death rate from tuberculosis in every province in India is unusually high, and the disease is on the increase. In the Bombay Presidency alone there were 60,615 deaths due to tuberculosis and allied diseases, during the year 1906-07. In the central provinces the figures have doubled during the last few years, those for the last official year being 16,609. In Madras the ravages seem to be more frightful. In 1902, the figure stood at 5,042; in 1906, it was recorded at 23,378. Five years ago, 584 persons succumbed to affections of the lungs in Eastern Bengal and Assam. During the last year, the number was quadrupled. In lower Bengal, the figures have risen from 5,666 to 12,825 during this period. In the United Provinces diseases of the lungs carried off over 20,000 victims in 1906, in the Punjab over 57,000, and in the Frontier Province 1,383.

DISTRICT OF COLUMBIA ASSOCIATION

EDITED BY F. FREMONT-SMITH, M. D., CHAIRMAN COMMITTEE ON EDUCATION

The education of the individual for the prevention of disease, especially of tuberculosis, begins in babyhood. It devolves upon the parents to teach a sense of order, obedience and respect for authority. The period of *childhood* is a vital one for *instruction* since during this formative period of the mind, ideas are keenly grasped and readily retained, particularly ideas pertaining to the physical being. In adult life the instruction must be given not only in order to aid parents in starting children correctly from the cradle but also that we may receive the co-operation of the parents in such instruction as is being now given in the public schools to all children, both white and colored, regarding tuberculosis.

It was just two years ago that Gen. Sternberg asked your chairman of the Educational Committee to undertake the work of instruction along all feasible lines. During the first year it was with difficulty that fourteen competent lecturers, chiefly physicians, were secured by the chairman for this work. These fourteen men lectured to 2,550 persons. In 1908 your chairman found no difficulty in securing the active co-operation of fifty lecturers, and the number of persons who received instruction by lecture was about 15,500, in religious societies, schools of upper grade, lodges, car barns, etc. In addition to this, through the generosity of Mrs. Morris K. Jessup, a

sufficient amount of money was obtained to place a visiting nurse in the public schools for simple talks on the subject of prevention of tuberculosis to teachers and children for the latter half of the year.

We start this year with a sufficient contribution, made by Mrs. Morris K. Jessup of New York and Mrs. Henry Kirke Porter of Washington, to conduct instruction in the schools for both white and colored for the entire year. This instruction to the children is of the utmost importance, inasmuch as the infection of tuberculosis is most frequently obtained in childhood, lies latent for years, and comes out during the period of active working life, twenty to forty years of age. Our school lecturer this year, Miss Grace L. Anderson, reports on work done in the Tenth to the Thirtieth Divisions of the Public Schools as follows:

Number of talks to teachers.....	4
Number of teachers attending	154
Number of talks to children.....	115
Number of children attending	4,166

Miss Anderson speaks to the teachers before entering upon work in each division, in order to explain what she wishes to bring home to these children and to enlist sympathetic co-operation. She reports splendid response from the teachers. The

supervising principals are doing all in their power to make Miss Anderson's work a success. Mr. Roscoe C. Bruce, Assistant Superintendent of Public Schools, is well pleased with the reports given him and recently suggested the possibility of taking up this work in the colored *night* schools which are attended by pupils needing advice and suggestion concerning tuberculosis, quite as much as day scholars. It is planned to have the pupils write compositions, a few days after each talk, upon what Miss Anderson has taught them so that the points made may be permanently impressed upon their minds.

The colored Anti-Tuberculosis Society of the District of Columbia, an active branch of this work, with Dr. J. R. Wilder, President, Rev. D. E. Wiseman, Vice-President, and Dr. George W. Cabaniss, Treasurer, has 2,700 members. No fees are required and certificates are given. They have given between thirty and forty lectures, and distributed four thousand leaflets. This Association intends to have about four meetings each month. They are planning to have friendly visitors to reach people in alleys and in side streets, who would not be taught through lectures.

A further advance in the work of instruction and protection of the well against the ill has been undertaken by your committee in the present year, proposed by Gen. Sternberg, and furthered by the efforts of our secretary, Miss Ruth Rizer. In the public

schools of Washington, tuberculous children have been allowed to receive instruction along with the apparently well and in the same school rooms. Your committee is receiving the co-operation of the Health Department, not yet official, through Dr. William C. Woodward, in the matter of segregating tuberculous children in a single building where they can receive instruction, and at the same time ample fresh air and regular school work. Seventy-six positive cases are at present known among the schools of this city; fifty-three colored, twenty-three white, all between the ages of five and fourteen years, on record at the Health Department at the present time. It is not only possible but probable that a considerable proportion of the fifty-two thousand children in the public schools, exposed to these cases of open tuberculosis, would in the course of time become in some way infected, were not segregation of the tuberculous accomplished; hence, the vital importance of your committee's action in this matter.

It is also proposed to undertake this year to aid in the furtherance of the National Bill Poster Campaign, as recently suggested by Dr. Livingston Farrand, Executive Secretary of the National Association.

The interest and enthusiasm manifested during the present year by the members of the Educational Committee is most gratifying and points to a very successful campaign against this universal enemy.

THE LOUISVILLE ASSOCIATION

EDITED BY F. A. SAMPSON, EXECUTIVE SECRETARY

Great possibilities lie ahead in the Kentucky work, through the plan which was contemplated several months ago by the concerted action of the several branches of the Anti-Tuberculosis work in Louisville, to so closely ally the various working forces as to practically make their work but parts of a larger and more comprehensive scheme of operation.

It was proposed at the time this matter was first taken up that the supervision of the Louisville institutions should be placed all under one charge and operated rather as kindred institutions than separately as at the present time. The importance of this step was made more evident as the new Municipal Hospital neared completion, to take up a greatly needed part of the campaign in the treatment of those cases either too far advanced or financially unable to secure treatment at the Association Sanatorium, which makes a nominal charge of \$10 per week to patients. The value of the Tuberculosis Dispensary, as an adjunct to the hospital work, made it of the great-

est importance that it must be closely allied with the Municipal Hospital.

To carry out this plan of action Dr. Alexius M. Forster, of Baltimore, has been engaged by the Board of Tuberculosis Hospital, The Association Sanatorium and the Louisville Anti-Tuberculosis Association, and has just taken up his work in Louisville.

Dr. Forster comes directly from the Eudowood Sanatorium, near Baltimore, where a powerful organization has been effected through his efforts, and results of the highest order attained.

Leaving Louisville six years ago in search of his own health, Dr. Forster went to Saranac Lake, N. Y., and eventually was engaged in the sanatorium of Dr. Edward L. Trudeau, from which sanatorium he went to the Gaylord Farm Sanatorium in New Haven, before his term as physician in charge of the Eudowood Institution.

Dr. Forster will have complete charge of the Tuberculosis Hospital, now almost completed at Waverly Hills, a few miles

out from Louisville. This institution will begin its work with a capacity of forty patients, who will be housed in two cottages, which with the administration building are about ready for occupancy. The capacity of the sanatorium will be steadily increased to care for more than one hundred patients. Its site is ideal, being located on the crest of the hills, lying back from the Ohio river, and affording a view of the magnificent stretch of surrounding country. The sanatorium property comprises about one hundred and seventy acres. Dr. Forster is on the ground early in order to equip the plant in the most thorough and effective manner, and at the same time will be able to supervise many details in the final construction of these buildings.

The supervision of the Association Sanatorium, will also be given to him and the closest touch will be maintained between the two, one of which partakes more of the nature of a private institution, receiving patients at a fixed charge, while the other new sanatorium will be a public institution.

The tuberculosis dispensary, which has been greatly enlarged during the past year, and has only recently added to its nursing staff, will be operated as a part of the new Tuberculosis Hospital, and its efficiency will no doubt be greatly augmented with the facilities which will be furnished for giving institutional treatment to indigent and advanced cases.

Dr. Forster will also act in an advisory capacity with the Louisville Anti-Tuberculosis Association, in its educational work and its general propaganda against the plague.

The Louisville Association, which determined in December, to establish a Tuberculosis Day Camp, up to this date has been unable to secure a convenient location.

Although the visiting staff of the Tuberculosis Dispensary, is not under the charge of the Board of Tuberculosis Hospital, the Association has added one more nurse to the visiting staff, paying for her maintenance out of its own funds, and has announced its willingness to assist the dispensary in this material way by furnishing eventually as many as three nurses, adding them as they are needed. Special nurses will be furnished for advanced cases requiring continuous attention. These steps were determined upon the recommendation of a

special committee appointed to formulate a program for the next year's work in conjunction with all other organizations in the city, working along similar lines. This committee also recommended that the Association should cease the relief work, which it has been doing since its organization. The work will be assumed hereafter by the Associated Charities of the city.

The State Legislature now being in session an effort will be made to secure an additional appropriation of \$16,000, to be added to the \$25,000 appropriation made by the State heretofore, for aid to private sanatoria, at the rate of twenty per cent. on the permanent investment. According to the terms of the act of the last session in this matter the Association Sanatorium should have received for the year 1907-8, the sum of \$5,600, which was twenty per cent. of the original investment, and not in excess of \$350.00 for each bed maintained for patients. Under the terms of the act \$8,419.38 was paid to the sanatorium as its appropriation for the year 1908-9. Since this payment the Attorney-General has rendered an opinion declaring that the sanatorium is not entitled to more than \$5,600.00 annually, since the number of beds continually occupied during the year was not enough to bring the appropriation to \$8,419.38, under the \$350.00 per bed limit imposed. The Attorney-General construes the act on the "not to exceed \$350.00, per year per bed, maintained for patients in such sanatorium," rather than on the basis of twenty per cent. of the amount invested through private benevolence. If this opinion is upheld it will work great hardship on the institution.

The State Association has prepared a bill for the establishment of a State Sanatorium, and its fate at this time is very uncertain. The bill calls for an appropriation of \$125,000.00 annually for the maintenance of the institution. The control of the sanatorium, is to be placed in the Board of Trustees, made up of representatives from each appellate district of the State.

The net receipts from the Christmas Stamp Campaign, in Louisville, amounted to \$2,000.00, approximately the same amount as from last year's campaign. The actual number of stamps sold exceeded that of last year by a good increase. The sales out through Kentucky amounted to about \$500.00.

TUBERCULOSIS PREVENTION NOT SUFFICIENTLY TAUGHT IN SCHOOLS

ONLY SMALL PERCENTAGE OF CHILDREN RECEIVE PROPER INSTRUCTION

Definite instruction concerning the nature and methods of prevention of tuberculosis is being given to less than six per cent. of the public school children of the United

States according to a bulletin issued recently by the National Association for the Study and Prevention of Tuberculosis.

Recent investigation has shown that in

only nine cities, Washington, D. C., Dallas, Tex., Richmond, Va., Poughkeepsie, N. Y., Detroit, Mich., Malden, Mass., Salem, Mass., Saginaw, Mich., and Knoxville, Tenn., are special text-books being used or lectures being given about tuberculosis. In three states and one territory, Michigan, Massachusetts, North Carolina and Porto Rico, laws have been passed requiring that instruction about the nature and methods of prevention of tuberculosis be given in all public schools. In Tennessee, the State Department of Education has requested that such instruction be given, and has issued circulars for this purpose. In New Jersey and West Virginia wall-cards giving instruction are hung in every school-room and the attention of all children is called to them. The actual number of children, however, who will this year be taught by their teachers that tuberculosis is a communicable, infectious disease, and that it can be prevented, will not exceed one million. If the state laws requiring such instruction were strictly enforced, at least 2,000,000 children would be reached.

While tuberculosis does not cause as many deaths among school children as it does among workingmen or among infants under five years of age, the National Association gives some figures to show how serious the disease is among this class. Based on the census of 1900, it is estimated that nearly 100,000 children now in school will die of tuberculosis before they are eighteen years of age, or that about 6,400 die annually from this disease. Estimating that on an average each child who dies of tuberculosis has had six years of schooling the aggregate loss to the country in wasted education each year amounts to \$1,152,000. According to investigations made in New York, Boston and Stockholm, the percentage of children who are afflicted with tuberculosis is much larger than the death rate would indicate.

There are two ways of checking the ravages of tuberculosis among school children. The first way is to instruct every school child about the dangers of the disease, and to show them how they themselves may prevent tuberculosis in their homes. The second method is to establish open-air schools for all children who have tuberculosis or who are suspected cases, segregating them from the healthy children.

WANTED

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By Thomas Crawford Galbreath

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TO WHILE THE HOURS AWAY WORK AND PLAY FOR PATIENTS TAKING THE CURE

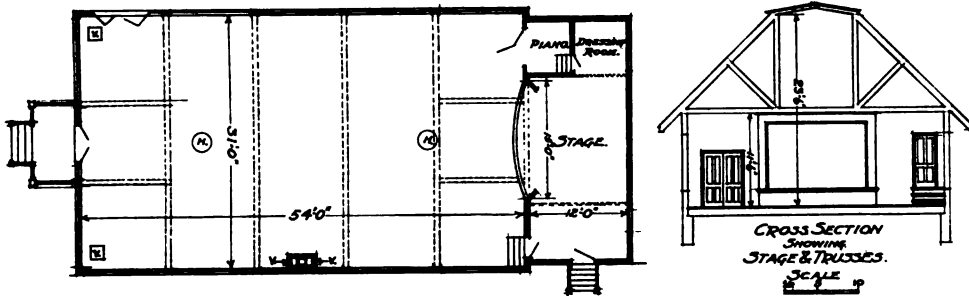
BY THOMAS SPEES CARRINGTON, M. D.

ASSISTANT SECRETARY OF THE NATIONAL ASSOCIATION FOR THE STUDY AND
PREVENTION OF TUBERCULOSIS AND IN CHARGE OF THE BUREAU
OF CONSTRUCTION

"A merry heart doeth good like a medicine." This old proverb is still true to-day but do those who are planning an institution for the cure of disease take this fact seriously under consideration? If good results are to be expected from the open air treatment of tuberculosis, the question must be considered, "How can we make the patients contented and help them to throw off their cares and worries?" This is also a problem for those who

among themselves their physical condition; such thoughts and depression of spirits must surely retard recovery and also in many cases may be the cause of intercurrent disease. If these patients were kept interested in other things, they would at least have less time to think about themselves.

Many persons do not know how to play and need someone to teach them. The success of most games among adults depends largely



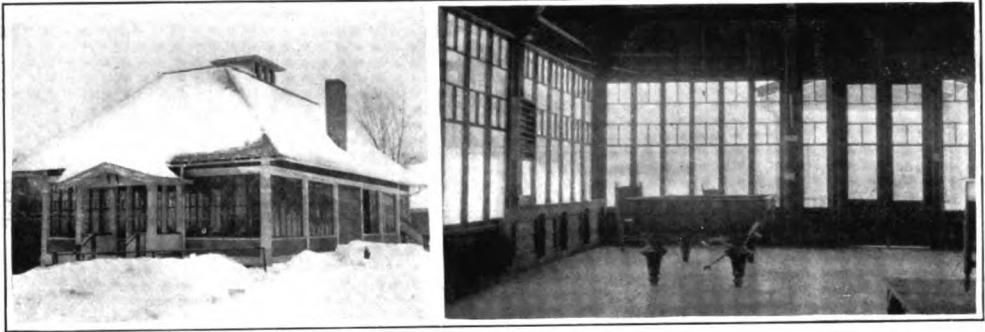
THE FLOOR PLAN AND CROSS SECTION OF THE AMUSEMENT PAVILION AT TRUDEAU, N. Y.

build a temporary porch and prepare to take the open air cure at home. Amusements and interesting occupations help those who are ill to forget themselves and remove from their minds for a time at least their troubles. I have often noticed that after a long time of worry over business or family matters, individuals contract pneumonia and while recovering from this disease become infected with tuberculosis. If worry and depression are a large factor in causing disease, is it not logical that anything that helps to do away with this condition is part of the cure?

Certain classes of patients will often sit about a hospital or sanatorium day after day, brooding over their troubles and discussing

upon the mood of the individuals participating and the amount of enthusiasm that can be aroused among them. Such success is usually due to one person who acts as a leader and for this reason it has been suggested that institutions for incipient tuberculous patients should have a competent person in charge of the amusements and industries.

Institutions for the treatment of pulmonary tuberculosis should, when possible, have a separate pavilion for amusement purposes. In some cases a recreation room placed in the administration building of a sanatorium has not been satisfactory. Patients taking the open air treatment for tuberculosis are often uncomfortable when indoors, especially when



VIEWS OF THE EXTERIOR AND INTERIOR OF THE AMUSEMENT PAVILION AT TRUDEAU, N. Y.

there are a number of persons in the apartment with them, and they prefer to remain on the porches rather than take their amusement in an enclosed building. A good type of amusement pavilion is one constructed with a stage for theatricals at one end and the sides and opposite ends arranged to be entirely open or closed to the weather. The pavilion at Trudeau, N. Y., is an illustration of this type of building. The room is open up to the roof, 23 feet above the floor at the peak. The stage is 12 feet deep by 15 feet wide with rooms on each side for dressing and other purposes. The pavilion, 66 feet

long by 31 feet wide, has a roof supported by trusses and is heated by a hot air furnace placed in a small cellar under the main floor. The sides and the end opposite the stage consist of adjustable glass windows, arranged so that those exposed to the wind or storm can be closed. There is also a large ventilator in the peak of the roof and ventilating registers on the side and end of the building.

At some sanatoria numerous articles for amusement purposes are supplied as part of the equipment and the following list made up from the reports of various institutions may be of assistance to those who wish to add new amusements or occupations for their inmates:

Amusement Pavilion
Open Air Sewing Room
Open Air Shop
Open Air Writing Room
Tennis Court
Croquet Ground
Basket Ball Ground
Scenery for Stage
Moving Picture Machine
Stereopticon
Lantern Slides
Piano
Organ

Pianola
Phonograph
Billiard Table
Pool Table
Ping-pong Table
Card tables
Checkers
Chess
Cards
Dominoes
Bean and Rice Bags
Various kinds of Balls
Horses and Other Means of conveyance.



1

2

1. TEACHING CHILDREN PHYSICAL CULTURE AT AN OUT-DOOR SCHOOL IN ENGLAND. 2. STUDY HOUSE AT AN OUT-DOOR SCHOOL IN ENGLAND

PLAY

Many of the institutions established for the treatment of incipient tuberculosis provide interesting amusements for their inmates.

The sanatorium at Rutland, Mass., has a base-ball field and a base-ball team made up from patients who are convalescent. It is said that nowhere could a healthier looking group of men be found than the members of this team. There have been no ill results from the games although they have played with other ball clubs from different parts of Massachusetts. The players are carefully selected from the patients by a doctor and are

pervision are permitted from Christmas to the Easter Holidays to join in sleighing, skating, skiing, coasting, tobogganing and snowshoeing. These winter sports have been a great success, due no doubt to the fact that tuberculous patients can take more exercise in cold weather without injury to their health than at any other time in the year.

At the Maine State Sanatorium, besides the winter sports just mentioned, the patients, under the direction of a nature club, make collection of wild flowers, ferns and minerals. During the open season grouse and rabbit shooting is allowed to those interested in hunting.



LITTLE CHAPS FROM THE CITY STREETS LEARNING TO CARE FOR FLOWERS AT SEA BREEZE

allowed to play only with his full consent. This institution also engages professional singers and musicians to perform in the recreation pavilion a number of times each year and has a good library to which additions are made from a fund set aside from the proceeds of these entertainments.

At Cragmor Sanatorium, in Colorado Springs, the inmates have a novel method of playing chess, whist and bridge, over the telephone wires. Teams selected from the patients living at the sanatorium ranch some fourteen miles away play against teams at the main institution, the moves and results being announced over the telephone, which gives unusual interest to these tournaments.

At Loomis Sanatorium, Swiss and Canadian winter amusements are provided for the patients and most of them under careful su-

The Bedford Sanatorium has a dramatic company which gives a series of very enjoyable entertainments during the year. The children publish a little weekly magazine and once a week have a "Critic Hour" at which they read interesting news items followed by a free discussion.

The United States Army Sanatorium built an amusement hall which seats 350 persons. This building is provided with scenery for theatricals, a piano, stereopticon and moving picture machine. The patients have formed an orchestra and give public concerts and other entertainments. Traveling theatrical companies are engaged when possible and illustrated lectures are frequently given. There is a billiard and pool table in the officers' club, and a library containing 2500 volumes open to all patients.



CABINET MAKING IN THE OPEN AIR SHOP AT THE ADIRONDACK COTTAGE SANITARIUM

At Wallum Lake an Open Air Club has been organized which arranges musical programmes, debates, lectures, Colonial parties, Japanese dances and minstrel shows.

One institution has introduced target practice, supplying their patients with rifles for this sport. Another makes a strong point of its popular illustrated lectures once or twice each week. A third has a strong club which gives much time to the study of the habits of insects, birds and small animals, the report of their research work being published from time to time.

Very little has been reported as to the introduction of games for the amusement of tuberculous patients. Numerous quiet games are exceedingly interesting and many of the so-called active games have so little action in them that they are not counted dangerous for convalescent patients. Game books should be on the library shelves of all sanatoria. The following list of games is offered as a suggestion. The description of them can be found in Miss Bancroft's book "Games."

QUIET GAMES.

The "B" Game
Buzz
Cross Questions
Dumb Crambo
Find the Ring
Hen Roost
Keep Moving

Leaf by Leaf
London
The Minister's Cat
Naughts and Crosses
Penny Wise
Poor Posy
Prince of Paris

BEAN BAG GAMES.

Bay Pile
Bean Bag Board
Bean Bag Box
Bean Bag Circle Toss

Bean Bag Ring Throw
Target Toss
Teacher and Class
Zigzag Games

ACTIVE GAMES.

Arrow Chase
Blind Man's Buff
Body Guard
Dumb-Bell Tag
Exchange
Follow the Leader
Fox and Geese

Going to Jerusalem
Hunt the Fox
I Spy
Jacob and Rachel
Odd Man's Cap
Pitch Pebble
Puss in a Corner

Russian Hole Ball
Slap Catch
Snow Dart
Spin the Platter
Stake Guard

Stealing Sticks
Sun Dial
Tether Ball
Trades

WORK

Good results have been obtained by supplying patients with amusements, but many physicians in the campaign against tuberculosis believe that carefully planned, light work gives still better assistance to their treatment. Graduated work for the tuberculous patient has been under discussion for a number of years, and one of the most interesting reports showing good results from this addition to the treatment of pulmonary tuberculosis has been given by Dr. Patterson, a prominent physician of England. He says, "Work is given to the patients to occupy their minds and prevent that mental degeneration and stagnation which is sometimes the consequence of sanatorium treatment." His patients begin taking exercise by walking short distances, the length of the walk being gradually increased until ten miles a day is made. Then the patient is given a basket in which to carry earth for the lawns, and, after a short period of this work, they are given boys' spades with which to dig for five minutes, followed by five minutes for a rest. The patients who do well are then allowed to work as hard as they are able with their small spades and later are given larger shovels. Under Dr. Patterson's careful observation, the patients are gradually trained to use the heaviest spades, shovels, and 5-pound

pickaxes with advantage to their physical condition. One patient who had been at this work was found pushing a heavy wheel-barrow full of sand without permission. He said he expected to leave the sanatorium soon and would have to do hard work and wanted to get into condition for it. He was willing to take the risk, and was allowed to wheel the barrow for three hours each day. When he left, he was very well and has since been at work for over two years. At the time of Dr. Patterson's report, the following work had already been accomplished and will show the scope and variety of the tasks which patients have performed: Nine hundred tons of mould, sand, and gravel, had been carried in baskets an average distance of 200 yards. The whole establishment had been kept in firewood; the boots of patients and the staff had been kept in repair. The patients' block of buildings had been painted and the whole of the grounds kept in order. The patients assisted in mixing and laying 1000 tons of concrete and in excavating and moving to a distance of 300 feet, 4175 tons of sand in the construction of a reservoir, and $3\frac{1}{4}$ acres of land was trenched, cleared, and brought under cultivation.

At Eudowood Sanatorium, Md., they believe in work for their patients and have es-



THE PATIENTS AT ENDOWOOD SANATORIUM LEARNING TO USE FORCING BEDS FOR EARLY VEGETABLES



TEACHING INDUSTRIES TO CHILDREN AT A DAY CAMP IN NEW YORK CITY

tablished a Training School for Nurses. Five young women who were patients have been selected for this class and after a two years' course will be graduated as special tuberculosis nurses. The men are given farm and garden work which is teaching many of them a new industry and greatly helps the institution to keep down its running expenses.

At Stony Wold Sanatorium, for women and children only, such work as sewing, embroidery, brass hammering, leather work, stenography and cooking, with the relative

values of foods and their cost, are taught the patients by competent teachers.

Dr. King in discussing the subject of work for tuberculous patients has said that as wide a range of occupation as possible should be at command to meet the individual requirements of each patient, and suitable provision made for very light work and short hours for beginners.

The following employments are being taught at various sanatoria or have been suggested as suitable for tuberculous patients:

Stenography
Magazine Publishing
Training Nurses
Art of Lettering
Drawing
Modeling
Art Work and Design
Wood Carving
Brass Hammering
Leather Work
Photography
Pyrography
Taxidermy
Jig-Saw Work¹
Toy Making²
Cabinet Making
Carpentering
Sign Writing
Weaving

Millinery
Dressmaking
Embroidery
Cooking
Basket Making
Cane Seating
Barbering
Puzzle Making³
Vegetable Gardening
Flower Gardening
Forestry
Farming
Poultry Care
Bee Culture
Stock Raising
Brick Laying
Wood Chopping
Mixing of Concrete⁴

(1) Jig-saw work includes furniture, bracket and puzzle making.

(2) Toy making, kites, balloons, ring toss, checkers, dominos, hammocks, baby hammocks for children's dolls and doll's furniture.

(3) Picture puzzle making is done by selecting pictures, pasting on board and cutting out with a jig-saw.

(4) Many of the buildings of an institution could be constructed almost without cost by using a concrete mixer.

THE NEGLECTED TUBERCULOUS CHILD*

BY ELLEN N. LA MOTTE

TUBERCULOSIS NURSE, INSTRUCTIVE VISITING NURSE
ASSOCIATION OF BALTIMORE

The Instructive Visiting Nurse Association of Baltimore has on its visiting list today (November 1, 1909) 1665 tuberculous patients, of which number 165, or 10 per cent. of the total, are children of and under school age. These children all have pulmonary tuberculosis, not bone or gland infections. It is estimated that we are only visiting a third of all the consumptives of Baltimore; therefore, we have but a third of the tuberculous children of the city. But it is not necessary to deal with supposed or estimated numbers; we have enough information afforded us by the 165 cases already on hand.

The ages of these children are as follows:

15 Years and under.....	38
12 Years and under.....	105
6 Years and under.....	24
	<hr/> 165 <hr/>

With the exception of the children in the last group, the twenty-four children under six years of age, all these children, or nearly all, go to school. Some of them go all the time and all of them go some of the time, so that they may well be classed as school children. It is needless to say that they go to school with considerable detriment to their own health, to say nothing of the risk involved for their classmates, with whom they come in contact. Medical inspection has so far done little towards detecting the presence of tuberculosis in these children, nor has it been able to exclude them from the schools. The reason is doubtless because tuberculosis in children is very difficult to diagnose. It requires expert physical examination, sputum examination, tuberculin tests and careful watching, and this is not to be had in the hurried and superficial examination of the school inspector.

*Read at the Fifth Maryland Conference of Charities and Correction.

Moreover, school inspection is very easy for the child to avoid; it merely means a well-timed absence during the days that the inspector is visiting a certain school.

As regards the continuance of these children in school, in case their condition is detected by the school authorities, or is reported to them by other sources, different factors come into consideration. In the first place children with tuberculosis do not often become as acutely ill as grown people. Their disease seems to run a milder and more chronic course. We have children on our lists today whom we had five years ago, and their condition today is very much the same as it was then. Five years ago, however, it was possible to persuade the parents that these children were really sick, while today they do not believe us. If a child had tuberculosis five years ago, they argue, why is he not dead? And because he is not dead, that proves that he never had tuberculosis at all. Any child may go to school with a "cold," and it is always possible to obtain a physician's certificate saying that the child has merely a "cold," and that settles it. This is one of the reasons why so many tuberculous children continue to go to school. Another is the attitude of the parent in the face of advice to let her child stay out of school and get all the "fresh air" he can. Where can he get this "fresh air" but on the streets? The mothers of the districts know full well what this freedom of the streets means; it usually means the utter demoralization of the child. To stay indoors in a close schoolroom may be bad for him physically. The mother is told that it is, which to her mind may or may not be so; it probably is not. But there is no doubt whatever in her mind that for him to run the streets free from all control is ruinous morally. The mother must choose between doubtful physical harm and certain moral harm. She prefers to take

the chances with the former. In speaking to me on this subject many mothers have said that as an alternative to the contamination of the streets they would prefer to have their children die.

A third reason for this school attendance is the ambition either of the child or of the parent, often of both. There is nothing spectacular about tuberculosis; in children it is nearly always chronic and long drawn out. It is hard to make parents realize that the up grade in school means the down grade in health, especially when the down grade in health is a slow process invisible to the eye of familiar relatives. It is difficult to make parents realize that an education that the child cannot survive is of small practical value. These three factors, therefore, account for the presence of tuberculosis in the schools: first, lack of detection; second, desire to keep the child at school rather than let him get into mischief outside; third, real ambition and desire to be "educated."

One remedy for this state of affairs would be the establishment of open-air schools, such as are already established in several of our cities, including Providence, Boston, Rochester, New York, Washington, Chicago, Pittsburgh and others. These schools take in not only tuberculous children, but suspects and pre-tuberculous cases as well as anemic and underfed children generally. It is considered that school work in the open air is beneficial for all classes of children, both those infected and those predisposed or likely to become infected. On that theory, if the ordinary school-room is such a hotbed of infection, and if all children would be benefited by a measure that would raise their vitality and resistance, why not have an *entire* school system made up of open-air schools? That would be carrying the matter to its logical conclusion. Why specialize with a few diseased or undernourished weaklings? A system that carefully tends the feeble *and at the same time* neglects and injures healthy stock is stupid and short-sighted. Why not improve the environment of healthy children as well? They deserve at least as much care as is spent on the unfit.

But to return. If a child in Baltimore contracts tuberculosis there is no place to send it. We have the State Sanatorium of Maryland, with beds for nearly two hundred patients, but with not one bed for a child. We have Eudowood Sanatorium, supported by private and

State aid, holding a hundred beds, but not one for a child. We have the Jewish Home for Consumptives, holding thirty, but with not room for a child. We have Bay View, the most valuable institution in Baltimore today, holding one hundred and sixty patients, but with not room for a child. It is true that occasionally a child is squeezed into one of these institutions, but after what an amount of begging and imploring and favoritism! That is not the way to run things, to have to wheedle and cajole and promise all sorts of good behavior on the part of the child, in order to get him admitted. And then, after all this exertion, weeks of it in some cases, the patient misbehaves himself after he is in, weeps with homesickness, is too small to dress himself, or climbs over lockers and is a nuisance generally; and then out he goes. The chances of ever getting another patient admitted, especially if recommended by the unreliable person who stood sponsor for this one, are forever gone. We don't want children admitted as a favor. We want a proper place provided for them. To be sure this would require special shacks, special service, special nursing and so forth. These conditions are not unique in Maryland, but are paralleled in every other State, and should be given their proper share of attention.

In some cities are day camps provided for tuberculous children. They offer an overflow for benevolence and are said to do good. At least they serve this purpose: they keep the children who are ill away from those who are well, for a time at least, and so lessen the spread of tuberculosis. I do not advocate day camps situated at impossible distances from the city, where the good received is overbalanced by the fatigue of traveling to and fro. I think our city parks, as well as the lawns surrounding certain of our large hospitals, might well be appropriated, small spots of them, for the establishment of day camps or day nurseries for tuberculous children.

I have mentioned three things we need, open-air schools, hospital and sanatorium accommodation, and day camps for tuberculous children. We need them. We have patients to fill them and it is a crying shame that we have not places for these patients. I have said just the things I was expected to say in speaking of the neglected tuberculous child, but now I am coming to the real thing, the only thing that counts. The title of his paper is wrong.

It should be: "The Child Whom We Neglect and Allow to Become Tuberculous." In comparison with *preventive work*, schools, sanatoria, hospitals, the costly machinery for cure do not amount to anything. I am sure these will be established, however, for "there are always a thousand persons to lop off the branches of an evil for one who strikes at the roots." The root I wish to call attention to is the child whom we neglect and allow to become tuberculous.

We have on our visiting list today 165 tuberculous children. Of this number 121, or *seventy-three per cent.*, come from homes in which there is already tuberculosis, 73 per cent. of our children have contracted tuberculosis either from their parents, from their grandparents, from older brothers or sisters, uncles, aunts, other relatives, or from some one *living in the house with them*. That is the point. They have contracted the disease at home, from people in the same house with whom they were in close daily contact. Of course, this cannot be scientifically proved, for to do so scientifically all other possible sources of infection would have to be excluded, such as casual visitors, the milk supply, street dust and so forth. But this is the common-sense view of it—the unscientific view that sees an intimate contact with a tuberculous relative a more probable source of infection than in the dust of the streets. Two or three of our children undoubtedly contracted tuberculosis from a boarder in the house, those boarders who are "just like a member of the family." Alas, far too like them.

This problem of prevention is a very difficult one, as tuberculosis is passed on from parent to child, usually in the name of love. The sort of love that feeds a child from the same spoon; that cuddles it and pets it during coughing attacks; that puts it to sleep in the same bed with the sick person, and that is deaf and immovable before all arguments and expostulations. It is the sheer brute affection of the ignorant and selfish. The history of 121 out of our 165 cases we can trace to some such source: weakness, selfish affection, indifference, ignorance or, worse than all of these, a real desire to do which is handicapped by circumstances from fulfilment. However, whether well meant or ill meant, the result is the same.

The question now before us is, are we to allow this? Is it or is it not our business to

interfere? What is the value of an open-air school if this is the home to which we allow the child to return? What is the value of the sanatorium, if at the end of the costly treatment we permit the child to return to surroundings in which he becomes re-infected? "A thousand pounds for cure, which does not cure, and twopence for prevention is, of course, the rule with a half-educated nation always." If this home infection were an occasional thing it would be different, but you cannot call seventy-three per cent. of such infections occasional. It is the home, the infected home, that is responsible for the spread of tuberculosis.

What, then, is to be done? If a parent, or any one else, treats a child cruelly at home there is a law by which the child may be taken out of that home and put under the protection of an agency capable of properly caring for it. Sometimes the law removes the parent, sometimes the child, but either way the two are separated. The law does not allow a man to beat his child and cripple it for life. If a child is starved or abused or otherwise maltreated it may be taken away from its parents or guardians. They cannot neglect it nor injure it beyond a certain point, and *the State is authorized to judge when that point has been reached* and to act upon that judgment. No sane person will deny the justice of this, nor call such protection unwarranted. How, then, about the child in the home where it is exposed to tuberculosis? Is the State going to sit idly by and permit that, or is it going to interfere? Nothing could be more cruel than to permit a child to contract tuberculosis, yet we are all afraid to take the first step to protect it. It is so much easier to permit this outrage than to face the storm that action would undoubtedly raise. Many people will say that the time is not yet ripe for radical measures, as if anything could be too radical in cases like this. Other people will contend that while a father may not beat his child or brutally misuse it, he is quite within his rights in giving it whatever disease he pleases, and that interference with such a course is no part of the public's business. Either we shall have to protect the child (either by removing it, or else removing the patient from the home), or we shall have to sacrifice the child for the sick man, as we are now doing.

Which shall we do?

THE DAILY ROUND

THE PATIENT'S VIEWPOINT ONE OF OPTIMISM AND CHEERFULNESS

BY A PATIENT AT STARMONT SANATORIUM, WASHINGTON GROVE, Md.

The problem to be faced by a person who has tuberculosis and who proposes making a fight for his life is grave indeed. The price he must pay will in most cases revolutionize his life and send him back to first principles. If he is wise he will seek a sanatorium, of which there are many all over the country, because taking the cure at home, while it can be done, is infinitely more difficult and in the long run can only be a compromise.

The underlying principle for the treatment of this dread disease is to give nature the best possible chance of throwing it off herself. We are born to live and probably would if our ancestors and ourselves had better understood and obeyed her laws.

One of the fruits of civilization in its flower is tuberculosis. It was unknown to primitive man. Therefore the consumptive must get "back to nature" in as far as he can. He must leave the steam-heated house, get over his dread of night air and draughts, his appetite for rich and indigestible foods, for midnight lunches and irregular meals—must abandon all the excitements and allurements of social life and become once more a primitive man.

He must live a quiet, regular life in the open. Twenty-four hours of the day to be spent out of doors is the ideal. He must eat nourishing, simple food and all of it that he can assimilate and he must rest, rest and again rest. No excitement—his very recreation must be of the quietest.

Happy is he who has simple tastes, who loves the flavor of the soil and can glean healthful pleasure from the changes of the seasons, the habits of the birds and insects, the secrets of nature, in short who can be content in watching the wonderful changes in the sky by day and by night. Away from the busy marts of men, away from its turmoil and artificialities, one has time to meditate upon and enjoy the real things

of life and grow in spirit as he could not possibly do under the pressure of modern affairs.

Sanatoria for tuberculosis are almost invariably situated in the country sufficiently distant from a city to insure pure air and near enough for convenience to a railroad station. An elevation and a fine woods are preferable.

The old belief that in climate lay the secret of returning health is now generally considered a fallacy—treatment being the thing. It has been demonstrated that a person has almost as much chance of getting well near home under proper treatment as if he went to the erstwhile meccas.

A patient entering such a sanatorium finds himself in a new world. Usually there is a central or administration building surrounded by tents or cottages or both in which the patients live and sleep, taking their meals in the main building. Usually there is a hospital or infirmary where bed patients are segregated. Excepting these last he finds himself in the midst of as healthy a community of people as he will meet anywhere and this perhaps is the first thing that strikes him. After a few months of this simple outdoor life patients take on flesh and gain a healthy rosy complexion that is the envy of their city friends. The atmosphere is distinctly cheerful. Everywhere, lying in reclining chairs, on the porches, or in the doorways of the tents, are these rosy folk, some busy with sewing or reading, others chatting cheerfully. If it is winter they seem entirely oblivious of the cold, but sit wrapped up in their rugs and fur coats with hot bricks at their feet and hot bottles in their laps, entirely comfortable, with snow or rain or what not a foot or two away. It is amazing how comfortable a tent can be at any season. In the winter the rear flaps are sealed, but except for privacy in dressing, the front

ones are open at all times, day and night, so that the patient is practically out of doors, except for the protection the canvas walls give him from winds and storms on the three sides and overhead. Even so, one soon comes to enjoy and later to demand this maximum of fresh air and a house is never the comfortable thing it once was, at least not as once used.

Time does not drag to the wise patient who finds diversion in everything at his doorstep. The regular routine life in itself makes a day pass quickly. Rising rather late and retiring early cuts off a day at both ends. At 11 o'clock a lunch of milk and eggs is served and before dinner (the mid-day meal) a rest is indulged in, making the morning very short. Another rest of an hour after dinner and after that a walk or visits with one's neighbors fills in an afternoon. After supper many engage in music or games until the early hour for retiring, and the day has gone.

Many patients are able to work in a quiet way. Men sometimes do bench work and the women, of course, find plenty of diversion in plain and fancy needlework. Both read and study and in the summer many that care to may do a little gardening. So the months slip by and health is regained and the patient is able to take up his life again, slowly at first, but, if he is wise, more surely, as time goes on.

It is held that cheerfulness and hopefulness is a characteristic of this particular malady. As a matter of fact the effect it has upon an individual is a matter of temperament. Troubles of all kinds affect a man according to his nature. Some it mellows and enlarges, others it hardens and sours. So it is with tuberculosis. As the average case, except in the last stages, suffers comparatively little pain, the chief trial is in his exile and the steady demand made upon his courage and patience. Therefore the worrying individual continues to worry while the hopeful one develops unthought-of capacities for fortitude, perseverance and patience that is almost pathetic in its heroism.

The tendency one would judge would be towards our common humanity. Social distinctions seem petty indeed where all are facing a common enemy in a common fight for life.

All honor to those brave soldiers, to those who lose as well as to those who win, for as Browning puts it

"Success is nought,
Endeavor's all."

Some of our bravest spirits have sent forth to the world their messages while fighting this foe, and none has given more hope perhaps than "Robert Louis the Beloved."

TUBERCULOSIS IN JAPAN

BY WILLIAM W. CADBURY, CANTON, CHINA

At no time in the year is the land of the Mikado more beautiful than in the first two weeks of April, when the landscape is flooded with masses of pink cherry blossoms. It was my good fortune to reach Japan when the flowers on the trees were at their height of perfection. The people look forward with great pleasure to this beautiful season of the year, but there are some features about the lives of the Japanese which make the heart grow sad even in the midst of all this loveliness.

It was with no small degree of astonishment that I learned that over thirty per cent. of the deaths in Japan are attributed to that same great White Plague which is being so energetically fought in the United

States. One physician went so far as to say that considering the large number of deaths not reported at all, or reported falsely, the correct number was probably nearer to sixty per cent.

It was my good fortune to spend a day with a missionary friend in the town of Mito, some seventy miles from Tokyo. In this town of about thirty thousand people there are forty physicians, graduates of Japanese medical schools, and one of the most prominent doctors lives opposite to my friend's house; so after office hours we walked over to make a formal visit. At the entrance the servant greeted us by falling on his knees and bowing his head to the ground; then when we had removed our

shoes we were ushered into the doctor's office. Three mats were placed on the floor about a charcoal firebox and we kneeled down and sat on our heels. The host soon arrived and after squatting on his mat he bowed three times to my friend. I was then introduced and the bows were repeated, I following suit as best I could. After a few moments tea was served, with cake, and then we commenced a most interesting talk on tuberculosis, my friend acting as interpreter.

It may interest my readers to learn of some of the things which were brought out in the course of our conversation, and of how the people of Japan live. The houses are not more than two stories in height and at least one and usually two of the four walls of each room are made up of large sliding frames with windows made of thin paper. Ideal for a consumptive you will say! Yes, but alas, a superstition everywhere prevails that night air is dangerous. So when the family crowds into the room at night, and the mats are spread out on the floor to sleep upon, wooden frames are drawn over the paper windows and not a breath of fresh air can gain entrance to the apartment. It was extremely interesting to talk with this Japanese physician and tell him of our three great principles of treatment of tuberculosis as taught in Europe and America. Only one of these principles is recognized by this doctor and his confreres, and that is rest. The consumptive who is very ill is advised to go to bed, and remain there until his fever falls.

With regard to diet, no directions are given as a rule. The patient continues to live on his common fare of half cooked rice and raw fish. Milk is sometimes given, but not more than a pint a day. Unfortunately this important food is too expensive for the laboring classes, who usually do not earn more than twenty-five cents as their daily wage. When I told of how I had seen the emaciated consumptive grow strong and stout on a diet of three quarts of milk and six or eight raw eggs per day, the doctor's eyes opened wide with astonishment. But this was nothing to his amazement when I spoke of the fresh air cure. I told him of the importance of sleeping, eating and living constantly in the open air. He inquired whether cough and hemorrhages were not made worse in this way, and it was very hard for him to believe that one could sleep in the winter time with windows wide open.

I asked him what medicines were used. Creosote and its compounds are generally

prescribed. For hemorrhage ergot and adrenalin chloride are the usual remedies. Tuberculin is almost never employed.

Tuberculosis of the bones is not very common. When an abscess points it is lanced, after which the "poison is allowed to be absorbed through the body." For spinal disease a cast is made of a rather tough fibre paper. One sheet is wrapped about the body, and other sheets are pasted over this until a very firm support is made. Bamboo is also used for this purpose. The green branches are soaked in hot water, making them very pliable so that they may be readily wound about the trunk of the body to form a kind of frame of support.

Later in the same day I had the privilege of meeting three more of the physicians in the town. One of them was himself in an advanced stage of consumption. I told them of some of the patients whom I had seen cured in Philadelphia and they listened with the keenest interest as I spoke of what to them was the wonderful new treatment by means of fresh air with milk and eggs. They spoke of the difficulty of educating the people to observe the laws of hygiene and were therefore much interested to hear of the active educational campaign now going on in America among the school children and the laboring classes. My chief regret was that I could not spend a whole week in this particular town and preach nothing but fresh air.

It must be remembered that the medical profession in Japan is still in its infancy. It is not more than one generation since the doctor of the old school was the sole medical advisor. He learned his receipts and prescriptions and charms from the Chinese classics, written some 2,500 years ago, when the fundamental laws of health were still unknown.

When these four physicians rose to leave, they thanked me most cordially for all I had told them, and it brought home to me more than ever the firm bond of fellowship which binds together the medical profession the world over. It is true that these men are isolated from the great centres of medical learning, yet they keep up with many of the discoveries of modern medicine through abstracts in their own Japanese papers.

This experience proves that if we are determined to wipe out tuberculosis from our own beloved country we must look outside of our own land and extend the beneficent campaign even to our neighbors in the Orient.

THE HARTFORD, CONN., PREVENTORIUM

AN OUTDOOR SCHOOL FOR DELICATE CHILDREN

BY HENRY FARNUM STOLL, M. D.

Photographs copyrighted by Hartford, Conn., Courant

*"Who are we, who are we;
We don't drink coffee, we don't drink tea.
We're for fresh air day and night
We're going to be healthy
All right, all right."*

This is the slogan of the boys and girls of the outdoor school. Should you be skeptical as to their developing into hardy adults, as you might be from some of the pinched faces and twisted bodies, a look at the charts show-

those who were robust, and that the children of tuberculous parents were infected about three times as frequently as those of healthy parents.

The committee planned to begin its work by establishing an outdoor school, or Preventorium, for the summer months. Permission was granted to pitch our tents in Goodwin's Park, and here one saw how fresh air and good food could transform delicate, sickly children into sturdy, robust youngsters.



HARTFORD'S OUTDOOR SCHOOL

ing each week's gain in weight would undermine your skepticism. Why, the first week three gained over five pounds apiece! And were you to drop in at dinner time to see how ravenously hungry they are, I am sure you would conclude that they had excellent chances of being healthy "All right, all right."

It all happened this way: At the annual meeting of the Hartford Society for the Prevention of Tuberculosis, held in January, 1909, a children's committee was appointed to investigate the condition of the health of the children of the tuberculous, and to devise some plan which would make these little ones strong and hardy.

It was found that frail children were much more apt to be infected with tuberculosis than

In all forty-one children were admitted to the school. They were frail little folks, weighing much less than the normal weight for their ages, but during the summer months they gained on an average over six pounds.

So successful was the summer work that in the fall the Board of School Visitors, acting upon the suggestion of the Children's Committee, asked the city for an appropriation for an outdoor school. This request was granted with the understanding that the Society for the Prevention of Tuberculosis would co-operate in this extension of the school system, by providing the children with nourishing food, warm clothing, blankets, etc. As there was no building near the center of the city adapted to the needs of the school, a large tent, suitably floored, was erected in the rear

of the Sigourney house on Hurlburt Street, now used as a night school. The tent was fitted up with the usual equipments of a school-room, and here one may see thirty happy children, all snug and warm in their "sitting out" bags, caps and mittens, not only developing into strong, robust boys and girls, but keeping up with their classes as well.

On their arrival in the morning, after taking off their wraps in the Sigourney house, and washing their hands, they have something warm to eat, either oatmeal, cocoa or warm milk, and crackers. Then they put on their sweaters, short coats, caps and mittens, furnished by the Society for the Prevention of Tuberculosis. If the shoes are wet—and they

The morning session is about two and a half hour long, and there is no make believe studying; no more conscientious work was ever seen in an "indoor school."

They have a short play spell before dinner is served—and how they eat! It is no wonder that one boy remarked the other day as he got up from the table that he thought he would "bust." When the appetite is appeased, and the teeth are carefully brushed, all hands go aloft, where the after dinner rest of an hour is taken in a large room with open windows. Each child has a reclining chair, two blankets and a comfortable. When they are wrapped up most of them go to sleep. Work begins again at 1:30, but a few of the more



TO CALL THIS AN INTERIOR IS ALMOST A MISNOMER

sometimes are, for it's lots more fun to walk in the gutter than on the sidewalk—they are exchanged for warm felt slippers. Then for out doors. After a few deep breathing exercises on the platform in front of the tent, they scramble into their "bags." These bags are made of water proof canvas, lined with heavy felt, and not only do they keep the feet and legs warm but the whole body as well, since they extend up over the back and chest. If the feet become cold a hot soapstone is slipped into the bag, and any child complaining of being chilly is allowed to go indoors to get warm. Except for the first few days, however, when the weather was bitterly cold, no one has asked for a soapstone, or gone in the house to get warm, and the old wood stove in the rear of the school-room is only used to dry the tent after a rain.

delicate are allowed to sleep an extra half hour. One frail little lass, who has to arise at 4:20 in the morning to do the housework because her mother is ill, sleeps over every day.

When the day's work is done the little folks are given some crackers and cocoa or warm milk before they start for home.

None of the children have what is commonly called "consumption," though most of them have tuberculosis of the bronchial glands. A few have tuberculosis of the bones—Potts or Hip disease.

Two of the children who coughed very badly when the school opened had lost their cough by the end of the first month.

This work is but a beginning. There are 14,500 children in the public schools of Hartford, and 4,000 in the parochial schools. One



THE AFTER DINNER REST IS TAKEN IN A LARGE ROOM WITH ALL WINDOWS WIDE OPEN

can say with extreme conservatism that 1% of that number, that is, 185, are in urgent need of the outdoor school, and 5%, 925, would be greatly helped by it.

In three school districts, where the 5,000 children come mostly from the poorer classes, an outdoor school would do an inestimable amount of good to at least 10% of that number. Pale, thin, sickly children, who, after a night spent in a closed room with several others, and a breakfast consisting of a cup of coffee, drag themselves off to a badly ventilated school room. The delicate, nervous child who may be at the head of his class is ill

fitted for the battle of life. Too long have we seen mental gluttony associated with physical starvation.

The frail sickly child should not be sent to the ordinary school. Each school building should have at least one room, preferably with a southern exposure, that can be widely opened. The outdoor school is no longer an experiment. It has been tried in many of the large cities, and all are unanimous in its praise. Many of the sad wrecks who are public charges in our almshouses and hospitals were delicate, sickly children in days gone by. Why not give the child a chance?

TRAVELING HEALTH LIBRARY

BY MRS RUFUS P. WILLIAMS.

CHAIRMAN HEALTH DEPARTMENT, GENERAL FEDERATION OF WOMEN'S CLUBS

Following is the list of books for a Traveling Health Library, recommended by the chairman, vice chairman and secretaries of the health department of the General Federation of Women's Clubs.

The purpose of a traveling Health Library is to bring within the reach of all carefully selected books of recognized authority, which may serve to awaken an interest and to instruct the public in the

methods to be used in the prevention and cure of tuberculosis.

While not the only good works, the books here noticed are among the best that have been written on their respective subjects, having been recommended to the committee by specialists.

To make its influence more lasting, the library should be accompanied by pictures of outdoor life for the treatment of tuberculosis and other material which will form an instructive exhibit.

The library should be circulated under the auspices of the State Federation of Women's Clubs. Before its arrival in a city or town the local club should attract attention to it through the press and in other ways. During its stay we strongly urge what has already proved very successful in many cases, the holding of an open mass meeting for the discussion of local health conditions with a view to improving them.

It is to be hoped that every state federation will own and circulate a Traveling Health Library.

*How to Get Well Book, by Francis De Witt, 74 India St., Boston. \$0.25. Postage, \$0.02.

Consumption a Curable and Preventable Disease. Lawrence Flick, Philadelphia. \$1.00. Postage, \$0.10.

*Open Air Treatment of Pulmonary Tuberculosis. Fanning. Keener Pub. Co., Chicago. \$1.50. Postage, \$0.10.

Diagnosis and Modern Treatment of Pulmonary Consumption. Latham. Wm. Wood Pub. Co., New York. \$2.00. Postage, \$0.12.

*Diagnosis and Modern Treatment of Tuberculosis. Pottenger. Wm. Wood Pub. Co., New York. \$3.50. Postage, \$0.25.

*Pulmonary Tuberculosis. Francine. J. B. Lippincott Co., Philadelphia. \$2.00. Special, \$1.90. Postage, \$0.10.

*Consumption and Civilization. Huber. J. B. Lippincott Co., Philadelphia. \$3.00. Special, \$2.70. Postage, \$0.25.

*Campaign Against Tuberculosis in United States. Jacobs. Charities Pub. Co., New York. \$1.00. Special, \$0.90. Postage, \$0.18.

*Medical Inspection in the Schools. Gulick. Charities Pub. Co., New York. \$1.00. Special, \$0.90. Postage, \$0.12.

Gaining Health in the West. Price. B. W. Heubsch, New York. \$1.00. Special, \$0.75. Postage, \$0.10.

*The Nutrition of Man. Chittenden. F. A. Stokes Co., New York. \$3.00. Special, \$2.15. Postage, \$0.25.

*Eating to Live. Black. J. B. Lippincott Co., Philadelphia. \$1.50. Special, \$1.35. Postage, \$0.10.

Muscle, Brain and Diet. Mills. MacMillan Co., New York. \$1.00. Special, \$0.75. Postage, \$0.10.

Chasing the Cure in Colorado. Galbreath. Thos. Galbreath, Denver, Col. \$0.50. Special, \$0.40. Postage, \$0.05.

Essentials of Dietetics. Pope and Carpenter. Putnam's Sons, New York. \$1.00. Special, \$0.90. Postage, \$0.10.

*Good Health. Jewett. Ginn & Co., Boston. \$0.40. Special, \$0.34. Postage \$0.09.

*Control of Body and Mind. Jewett. Ginn & Co., Boston. \$0.50. Special, \$0.42. Postage, \$0.09.

Milk and Its Products. Wing. MacMillan, New York. \$1.50. Special, \$1.13. Postage, \$0.10.

Practical Nursing. Putnam's Sons, New York. \$1.75. Special, \$1.55. Postage, \$0.10.

Theory and Practice in Cooking. Williams and Fisher. MacMillan Co. \$1.00. Special, \$0.80. Postage, \$0.10.

*Invalid Cooking. Boland. Century Pub. Co., New York. \$1.50. Special, \$1.34. Postage, \$0.10.

Friendly Visiting Among the Poor. Richmond. MacMillan Co. \$1.00. Special, \$0.75. Postage, \$0.10.

Supervision and Education in Charity. Brackett. MacMillan Co. \$1.00. Postage, \$0.10.

Constructive and Preventive Philanthropy. Lee. MacMillan Co. \$1.00. Postage, \$0.10.

*Why Worry? Walton. Lippincott Co., Philadelphia. \$1.00. Special, \$0.90. Postage, \$0.08.

To each library may be added the publications of state and local boards of health and those to be obtained of the Department of Agriculture and Public Health and Hospital Marine Service, Washington, D. C.

So short a list as this but touches the great subject of health. It has the power, however, of awakening interest in local conditions, which will bear permanent results. It will suggest ways in which local public libraries can be of great value to their readers. It will impress the facts that sunshine, fresh air, proper food and exercise fortify the system to resist disease.

It is obvious that a library of this kind can remain in one place but a short time, therefore there should be several books on the most important subjects, in order that more than one shall have the opportunity of studying them.

State Federation chairmen of the Health Department can obtain the above books for their *traveling library* at discounts stated. Postage extra.

The stars indicate the choice advised when small number of books is purchased.

The Gazer

By MARY CHAPIN SMITH

The golden mist hangs on the hills,
Those magic hills that lie,
And with their gates of rock and wold
Shut out the world thereby.

Grim towers, like watch dogs held in leash,
High walls, encircled round;
In thin Circean air they change,
And pass without a sound.

Now jade and emerald are they,
Or silver-rose a space;
Or jasper pied with beryl stone,
And then in diamond lace.

One tried erewhile these walls to scale,
One might not hope to reach
(Rosy the flowers that blushed thereon,
Like bloom upon the peach);

So near they seemed that one might touch,
Then far and softly fair;
—Swift closing down, the prison towers
Implacable are there.

But oh! to reach the lands beyond,
Brave cities by the sea,
Gold ships a-sailing in the sun,
Gardens for you and me;

Spice gardens in the summer wind,
Gardens of lime and rose,
And silver moonlight over hills
Whereon the olive grows.

To hear the murmur of gray doves,
That, when the red sun sets,
Fly down where sacredly are traced
Shadows of minarets;

To watch the traffic of the East
In carven ivory,
Webs one time spun in gay Shiraz,
For Hafiz, it may be;

Prayer rugs and silken gossamers,
And rainbow broidery;
Sweet sandal-wood and betel-nut,
And silver filigree;

Ruby whose deep and sullen glow
Once flamed from Hindu god,
Where thousand worshipers intoned
Their prayers with drowsy nod;

To catch the gleam of old inlay
On sword of Saracen,
Or hear the slow and constant drip
Of ancient fountains, when

The salamander suns himself
On ruined palace walls,
Where ghosts of rajahs dead and gone
Tread corridors and halls.

The prison towers hang dark and grim;
Palace and minarets
Beyond, they glow with rose and gold
Whenever the red sun sets:

While one stands yonder gazing out
Towards lands far over sea;
O when will prison gates unbar?
O where the golden key?

Journal of the Outdoor Life

OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS; THE KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION; THE PENNSYLVANIA SOCIETY FOR THE PREVENTION OF TUBERCULOSIS; THE NEW HAVEN COUNTY ANTI-TUBERCULOSIS ASSOCIATION; SARANAC LAKE SOCIETY FOR THE CONTROL OF TUBERCULOSIS; PROVIDENCE, R. I., LEAGUE FOR SUPPRESSION OF TUBERCULOSIS; ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS OF THE DISTRICT OF COLUMBIA, JACKSONVILLE, ILLINOIS, ANTI-TUBERCULOSIS SOCIETY.

PUBLISHED MONTHLY BY
JOURNAL OF THE OUTDOOR LIFE PUBLISHING COMPANY

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JAMES ALEXANDER MILLER, M. D.
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Vice-President and Treasurer

WARWICK S. CARPENTER
Secretary and Managing Editor

The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

ABSURD LEGISLATION

A certain amount of hysteria and misguided activity is inseparable from any such active propaganda as that of the anti-tuberculosis campaign. Phthisiophobia in its various forms has always been one of the chief problems to be met. It was also to be expected that in different communities ill-advised though well intentioned methods would be adopted to meet the situation. It is still a difficult task to persuade many anti-tuberculosis associations that a liberal distribution of milk and eggs will not eliminate tuberculosis from any locality.

Until recently our Legislatures could certainly not be charged with pernicious activity or undue enthusiasm in attacking the problem of tuberculosis prevention. The recent awakening of State authorities to a sense of responsibility has been one of the most encouraging results of the campaign and will undoubtedly show in permanent benefits of the greatest value. The inevitable has happened, however, and in at least two States rules or laws have been enacted that would be ridiculous were the consequences not so serious. We have already had occasion to comment on the extraordinary action of the

Oklahoma Board of Medical Examiners which refuses to license any physician suffering from tuberculosis to practice medicine within the boundaries of the State. It has remained for the General Assembly of the neighboring commonwealth of Nebraska to enter the field of phthisiotherapy and direct by law the specific treatment of tuberculous patients in the sanatoria of the State. In an Act adopted at the last session of the Nebraska Legislature, providing for "the care of indigent pulmonary consumptives and to prescribe the duties of county boards and the State Board of Health in that regard," among other doubtful sections it is "Provided, further, that it is made obligatory for any such hospital or sanatorium to use the modern treatment by immunization (vaccine therapy) in addition to open air and other sanitary methods."

It is encouraging to note that some restiveness has appeared in the medical profession of the State but the law still remains in operation. When doctors disagree it may be difficult to determine the court of last resort but it can hardly be the Legislature of Nebraska.

ANIMAL EXPERIMENTATION

During the past winter the opponents of animal experimentation have been particularly active. It is gratifying to know, however, that in spite of all the misguided energy which they have expended, the general public is more than ever alive to the true purpose of experimental medicine and the results which

it has accomplished and is still accomplishing with such signal success.

Koch made his wonderful discovery of the tubercle bacillus as the cause of a large number of diseases formerly believed to have a totally different origin than that of pulmonary tuberculosis entirely through animal ex-

perimentation, and without such use of animals it is inconceivable that the present anti-tuberculosis movement would have arisen.

Similarly Cornet demonstrated the channels by which the tubercle bacillus gains access to the body, and so helped to lay the foundation for the comprehensive system of tuberculosis prevention which is now depended upon ultimately to eliminate tuberculosis from among the most prevalent diseases.

It was after the discovery of the bacillus that Trudeau experimented with rabbits in an endeavor to determine the effect of environment on tuberculous process and so build up a rational method of treatment. Inoculating some rabbits with tubercle bacilli he placed part of them on an island in the St. Regis Chain of Lakes where they were in the fresh air all the time and food was abundant. The others he confined in a cellar under unfavorable conditions. The rabbits in the cellar died; those on the island resisted the infecting germs and lived.

Following directly from this experiment has come a comprehensive and effective treatment of tuberculosis which is now practiced in every State in the Union, and is returning to usefulness thousands of lives which would otherwise be wrecked.

We do not believe that any of the agitators against animal experimentation would refuse this treatment should they contract tuberculosis. We doubt very much if they would forbid injection of anti-diphtheritic serum if their children became ill with diphtheria. We are just as certain that in the presence of a case of cerebro-spinal meningitis they would forget the consistency which is a jewel and demand the use of Flexner's anti-meningococcic serum, which reverses the death-rate from 72 per cent. of fatalities to 72 per cent. of recoveries, lessens the terrible suffering and returns the patients to sanity instead of to imbecility. Confronted with these necessities, it is not difficult to realize that man is of more value than many sparrows.

SIXTH ANNUAL MEETING OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

The Sixth Annual Meeting of the National Association for the Study and Prevention of Tuberculosis will be held in Washington, D. C., at the New Willard Hotel, on Monday and Tuesday, May 2nd and 3rd.

The first session will be a general meeting called at noon on Monday, May 2nd. Sectional meetings will be held on the afternoon of May 2nd and both morning and afternoon of May 3rd.

The meeting of the Advisory Council will be held on the evening of May 2nd. The subject for discussion will be "Invalid Insurance," with special reference to tuberculosis and will be presented by Dr. Lee K. Frankel of New York.

The preliminary program thus far arranged is as follows:

CLINICAL SECTION

- Dr. L. F. Barker, Baltimore, Chairman.
- D. Louis Hamman, Baltimore, Secretary.
- Dr. W. L. Dunn, Asheville, N. C.:
"The Responsibility for Relapse after Discharge of Tuberculous Patients."
- Dr. Albert P. Francine, Philadelphia:
"A Plea for the Teaching of Tuberculosis as a Special Branch of Medicine in Medical Schools."
- Dr. Louis Hamman and Dr. Wolman, Baltimore:
"Tuberculosis Tests."
- Dr. T. D. Gordon, Ann Arbor, Mich.:
"The Relation of the Cutaneous to the Subcutaneous Tuberculin Tests."

- Dr. S. Adolphus Knopf, New York:
"State Phthisiophilia and State Phthisiophobia, with a Plea for Justice to the Consumptive."
- Dr. H. R. M. Landis, Philadelphia:
"Gastric Symptoms in Tuberculosis."
- Dr. Charles L. Minor, Asheville, N. C.:
"Early Changes in the Larynx in Pulmonary Tuberculosis."
- Dr. John Ritter, Chicago:
"A Contribution to the Study of Pulmonary Tuberculosis in its Relation to Albuminuria."
- Dr. T. B. Sachs, Chicago:
"Some Observations on the Comparative Practical Value of Various Tuberculin Reactions in Diagnosis."
- Dr. Henry F. Stoll, Hartford, Conn.:
"The Diagnosis of Tuberculosis of the Bronchial Lymph Glands."
- Dr. Joseph Walsh, Philadelphia:
"Antagonism of Heart Disease to Pulmonary Tuberculosis."
- Dr. W. C. White and Dr. K. H. Van Norman, Pittsburg:
"A Quantitative Index to Tuberculin Dosage in Treatment."
- Dr. J. C. Wilson, Philadelphia:
"Clinical Notes on Pulmonary Tuberculosis."
 1. The Inability to Eat and Digest Fats as a Predisposing Influence.
 2. The Significance of Certain Forms of Haemoptysis.

PATHOLOGICAL SECTION

Dr. Theobald Smith, Boston, Chairman.

Dr. Walter C. Bailey, Boston, Secretary.

1. Artificial Lymphocytosis in Tuberculosis.
By Gerald Bertram Webb, M. D., Colorado Springs.
2. A Study of the Leucocytes in Pulmonary Tuberculosis.
By Myer Solis Cohen, M. D. and Albert Strickler, M. D., Philadelphia.
3. Progression of Tuberculosis of the Lungs in Fatal Cases.
By Joseph Walsh, M. D., Philadelphia.
4. Types of Tubercle Bacilli found in Human Tuberculosis and Their Relative Importance.
By William H. Park, M. D. and Charles Krumwiede, M. D., assisted by Drs. Anthony and Greind, New York.
5. Two cases of Human Tuberculosis Associated with the Bovine Type of Bacillus.
By Marshal Fabyan, M. D., Boston.

6. The Reaction Curve of the Tubercle Bacillus in Glycerine Bouillon. Its Significance and Diagnostic Value.
By Theobald Smith, M. D., Boston.

SOCIOLOGICAL SECTION

Mr. Bernard Flexner, Louisville, Chairman.
Mr. Frank E. Wing, Chicago, Secretary.

- Mr. James Jenkins, Jr., Brooklyn, N. Y.:
"Budget and Program for a Local Anti-Tuberculosis Campaign."
- Dr. A. M. Forster, Louisville, Ky.:
"Employment for Tuberculous Patients."
- Mr. Robert J. Newton, St. Louis, Mo.:
"Anti-Spitting Ordinances and their Enforcement."
- Dr. Henry F. Stoll, Hartford, Conn.:
"The School Child and Tuberculosis—A Plea for Preventoria."

A NATIONAL TUBERCULOSIS SUNDAY ON APRIL 24th

Announcement of a national tuberculosis Sunday to be held on April 24th in 215,000 churches of the United States was made recently by the National Association for the Study and Prevention of Tuberculosis.

Following campaigns against tuberculosis that have been carried on in the churches of hundreds of cities, and sermons on tuberculosis that have been preached before thousands of congregations during the past year, a movement has been started to establish a permanent tuberculosis Sunday, on which it is hoped that every one of the 33,000,000 church-goers in the United States will hear the gospel of health. It is planned to enlist the active co-operation of anti-tuberculosis organizations, labor unions, fraternal organizations, and other bodies together with the churches in the movement. The aid of leading churchmen in many of the principal denominations has already been offered. All of the large interdenominational bodies, such as the Young Men's Christian Association, the Young Women's Christian Association, the King's Daughters and Sons, and the various young people's societies are also in sympathy with the anti-tuberculosis campaign.

It is planned that on April 24th tuberculosis sermons shall be preached in all the churches of the country. Literature will be distributed to members of the congregations, and in every way an effort will be made to teach that tuberculosis is a dangerous disease and that it can be prevented and cured.

Clergymen who desire to obtain additional information in regard to tuberculosis will be able to secure literature from state and local anti-tuberculosis associations and boards of

health, as well as from the National Association.

Following is a suggestive outline for sermons or lectures:

OUTLINE OF SERMON OR LECTURE ON TUBERCULOSIS

Tuberculosis is a Communicable, Preventable and Curable Disease

I. INTRODUCTION.—200,000 persons die annually in the United States from tuberculosis. One-tenth to one-seventh of all deaths are due to tuberculosis. One-third of all deaths between ages of 18 and 45 are due to tuberculosis.

II. WHAT TUBERCULOSIS IS.—Tuberculosis is a disease process caused by the growth in the body of tubercle bacillus or germ. The germ is a vegetable parasite, rod shaped, approximately 1/10000 of an inch long and 1/100000 of an inch wide, discovered by Robert Koch of Berlin in 1882. The daily expectoration of a consumptive may contain millions of germs.

The germ in growth destroys tissues and produces poisons or toxins which cause the well-known symptoms of the disease.

The commonest form of tuberculosis is tuberculosis of the lungs, or consumption, but it may occur in any part of the body and especially in the bones and joints.

III. PREDISPOSING CAUSES. *In the Person*.—1. Weakened physical condition. 2. Alcoholism. 3. Disease—pleurisy, typhoid, grippe, pneumonia, measles, etc.

In the Environment.—Bad living and working conditions—especially impure air, darkness, dirt and dust.

IV. IMMEDIATE CAUSES.—Tuberculosis is acquired, not inherited. The commonest method of infection is by *inhalation*. Dried germs from sputum of consumptives float in the air and are breathed into the lungs. Hence the necessity of destroying all sputum, and of special precautions in coughing and sneezing. Tuberculosis may also be acquired by *ingestion* i. e., by swallowing the germs with infected milk and food and more rarely by *inoculation* through cuts and wounds.

V. COMMONEST EARLY SYMPTOMS.—Cough lasting a month or longer; loss of weight; afternoon temperature; night sweats; spitting of blood or streaks of blood in sputum; run down feeling. *These symptoms should lead anyone to consult a physician at once.*

VI. TUBERCULOSIS IN CHILDREN.—Tuberculosis is not inherited. A person may inherit a weak constitution which is especially susceptible to tuberculous infection. Prevalence in families where parent has consumption is due to direct infection. Danger from playing on infected floors, using infected utensils, clothes, etc.

VII. HOW TUBERCULOSIS MAY BE TREATED AND CURED.—1. Essentials in cure of tuberculosis are light, fresh air, cleanliness, rest and wholesome food. 2. Early discovery of disease is necessary for cure. Best method of cure is sanatorium treatment. 3. Disease may be treated at home, if patient can be given plenty of food and fresh air under direction of a physician. Tuberculosis dispensaries give free advice and treatment to those unable to pay a physician. 4. Avoid patent medicines and advertised cures. They do not cure and are always dangerous. 5. No danger from a careful consumptive who destroys his sputum properly and is cleanly in habits.

VIII. HOW TUBERCULOSIS MAY BE PREVENTED.—1. By teaching the consumptive to destroy his sputum. 2. By teaching people not to sleep, live or work in dark or badly ventilated rooms. 3. By teaching the consumptive how not to infect his family or neighbors. 4. By discovering the disease in its early stages and curing the patient, thus removing a source of infection to others. 5. By educating the community as to the nature of the disease—that it is communicable, preventable and curable. 6. By educating people to keep their bodies in such physical condition as to enable them to resist the germs. 7. By advocating fresh air, out-door life, sunshine, rest, no overwork, wholesome food, temperate habits.

IX. WHAT IS BEING DONE TO PREVENT TUBERCULOSIS.—An organized movement in all parts of the United States which has for its objects: 1. The education of all the people with regard to the facts. 2. The establishment on an adequate scale of: (a) Hospitals for advanced and incurable cases. (b) Dispensaries for early diagnosis and advice.

(c) Sanatoria for treatment of curable cases. 3. The securing of proper state and municipal legislation. 4. Co-operation with all sound movements for the betterment of living and working conditions. The growth of the movement may be seen in the fact that there were in the United States on January 1, 1910, 394 anti-tuberculosis associations and committees, 386 special tuberculosis hospitals and sanatoria, and 265 special tuberculosis dispensaries. Before January 1, 1905, there were 24 associations, 115 tuberculosis hospitals and sanatoria and 19 special tuberculosis dispensaries.

X. HOW YOU CAN HELP.—1. *Teachers.*—By instructing pupils as to nature, prevention and cure of tuberculosis; teaching children simple rules of health, how to breathe deeply, etc.; keeping the class room well ventilated. 2. *Parents.*—By keeping the home clean and well ventilated; teaching children to sleep with windows open, to eat proper and nourishing food, to observe the laws of health. 3. *Children.*—By keeping clean; by not putting anything into your mouths, except food; by staying as much as possible in the fresh air and sunshine; by eating only wholesome and nourishing food. 4. *Workers.*—By insisting on the working place being thoroughly ventilated; by avoiding dust, dampness and darkness; by avoiding overwork; by demand for proper spittoons. 5. *Everyone.*—By taking care of your own health; by stopping indiscriminate spitting; by joining in the movement to stamp out tuberculosis in your community.

NOTE.—Ascertain tuberculosis mortality for your state or city as well as other facts of local interest from the Health Officer or local Anti-Tuberculosis Association.

LITERATURE

Further information can be obtained from the following books and pamphlets which are written for popular use and can be recommended as trustworthy: 1. *Tuberculosis as a Disease of the Masses and How to Combat It.* By S. Adolphus Knopf, M. D. 104 pp., 5th edition, New York, 1908. The Survey. Paper, 20 cents; cloth, 50 cents. 2. *Tuberculosis: A Preventable and Curable Disease; Modern Methods for the Solution of the Tuberculosis Problem.* By S. Adolphus Knopf, M. D. 394 pp., New York, 1909. Moffat, Yard & Co. \$2.20 postpaid. 3. *Tuberculosis: A Curable and Preventable Disease.* By Lawrence F. Flick, M. D. 64 pp., Philadelphia, 1910. John C. Winston Company. 10 cents. 4. *The Crusade Against Tuberculosis: Consumption a Curable and Preventable Disease: What a Layman Should Know About It.* By Lawrence F. Flick, M. D. 295 pp., Philadelphia, 1903. D. McKay. \$1.00. 5. *The Great White Plague—Tuberculosis.* By Edward O. Otis, M. D. 321 pp., New York, 1909. Thomas Y. Crowell & Co. \$1.10 postpaid.

NOTES AND NEWS

HEALTH CONSERVATION IN SOUTH CAROLINA.

A significant step and one promising great results was a conference on the conservation of public health held in Columbia, South Carolina, on February 21 and 22 in connection with the American Tuberculosis Exhibition. The conference was attended by delegates from all parts of the state.

The program included the following addresses:

The Economic Loss from Preventable Diseases, Dr. Woods Hutchinson of New York City; The Need of Public Health Education, John E. Swearingen, State Superintendent of Education; The Regeneration of Child Life in the South Through Modern Research Methods Applied to Education and Labor, Dr. Thomas Morgan Rotch, Harvard University; Hookworm Discussion, Dr. C. W. Stiles, U. S. Public Health and Marine-Hospital Service, Washington, D. C.; Typhoid-Discussion, Dr. J. D. Long, U. S. Public Health and Marine-Hospital Service, Washington, D. C.; Tuberculosis, Communicable, Curable, Preventable, Mr. E. G. Routzahn, Director of American Tuberculosis Exhibition; Responsibility of the Physician as Seen by a Physician, Dr. John L. Dawson, President South Carolina Medical Association and Association for the Study and Prevention of Tuberculosis; Responsibility of the Physician as Seen by a Layman, W. H. Hand, Professor Secondary Educational, University of South Carolina; Legal Powers and Responsibilities of Health Officials, J. P. K. Bryan, Attorney-at-Law, Charleston, S. C.; Methods of Administration and Financing Health Work, Dr. Robert Wilson, Jr., Dean Charleston Medical College and Chairman State Board of Health; Preventive Medicine the Medicine of the Future, Dr. J. W. Jervey, Greenville, S. C.; Malaria, Dr. F. A. Coward, Director Laboratory State Board of Health, Columbia, S. C.; Eradication of Malaria by Drainage, Col. James Cosgrove, Secretary and Engineer the Sanitary and Drainage Commission for Charleston County, Charleston, S. C., and Responsibilities and Opportunities of the People as Regards Public Health, Dr. S. C. Mitchell, President University of South Carolina.

The conference adopted several resolutions, among them plans of procedure for the coming year and a broad program for preventive work on the part of public and private organizations. The responsibility for health welfare was placed first, in the state, cities, towns and counties; second in the medical profession; and third, in the organizations and institutions more or less interested in health measures.

The outline of a campaign of prevention adopted by the conference included the following points: education, particularly through official health bodies; a study of conditions in all parts of the state; the treatment and cure of all cases of infectious diseases; the registration of all infectious diseases; the supervision of water, milk, and food supplies; a vigorous, progressive and broad visioned policy with reference to municipal sanitation; and the development of a community interest in health problems. For the conduct of this campaign the conference urged the co-operation of all social and civic bodies, together with the churches, schools, commercial and fraternal organizations. It was also urged by the conference that health authorities be given sufficient power and funds to carry out the policies discussed at the conference.

For the coming year, the conference proposes that, within the next ninety days, all civic and social bodies at all interested in health measures shall discuss in detail the program adopted by the conference. This discussion should lead to representative town and county discussion of the same topics, and all should be preliminary to a large conference to be held in a year, at which time it is hoped that public sentiment will be sufficiently aroused to put some parts of the campaign into execution.

COLORADO TAKES ACTION.

Colorado is no longer to be ranked as a laggard in the educational crusade against tuberculosis, if the program which was recently adopted by the Board of Directors of the Colorado Association for the Prevention and Control of Tuberculosis is any indication of a progressive spirit.

Heretofore, the state of Colorado has been in the anomalous position of being one of the chief centers for the treatment of tuberculo-

sis, with a large percentage of its population composed of those who have been affected, and yet of having taken no legislative or restrictive steps against the disease.

Following the campaign in connection with the exhibition of the National Association for the Study and Prevention of Tuberculosis, which was recently closed, the state association was definitely organized with a salaried executive secretary, S. Poulterer Morris.

The program of the association includes the establishment of dispensaries, tuberculosis classes, and day and night camps in the larger cities of the state; the distribution of literature for use in the schools; the publication of a monthly magazine; the drafting and pushing of a registration law; the abolition of the common drinking cup on trains, in theatres, churches, schools and department stores; the creation of a fund for special relief to be used in connection with classes and dispensaries; and the establishment of a state-wide clipping bureau.

The committee on legislation is now drafting a registration bill, and plans are being made to circulate copies of the proposed law in every section of the state preparatory to its introduction in the legislature next year.

As one of the first fruits of the agitation, a movement has been started to erect a sanatorium for negroes near Denver, the institution to be supported by colored churches and secret societies in all parts of the country. Another result of the campaign has been a greatly increased demand for sanitary drinking cups. So great has been the call for them in the last few weeks, that the supply is being exhausted as rapidly as it is secured.

A further development of the work is an experiment inaugurated by the street railway company of Denver, for the purpose of preventing spitting in the cars. Small cards bearing the ordinance against spitting have been distributed to the conductors. Whenever a person spits on the floor of the car, the conductor hands the spitter a card. This, together with frequent arrests is doing much to prevent the evil.

The State Association has elected the following officers for the coming year: Dr. G. W. Holden, President; Dr. H. W. Hoagland, first vice-president; Mr. J. H. Pershing, second vice-president; Dr. M. Collins, secretary; Dr. O. D. Westcott, treasurer. S. Poulterer Morris has been chosen executive-secretary.

WORK OF CONNECTICUT'S COMMISSION.

That the Connecticut State Tuberculosis Commission, which was appointed by the last legislature has been very busy, is evidenced by the fact that already one of the three projected county hospitals is open and the construction of the other two is progressing rapidly. The act creating the commission provided \$150,000 for the erection of three hospitals in different counties of the state with a combined capacity of not less than 300 beds. Owing to these restrictions, the hospitals are being built with the most rigid economy. The first hospital which the commission has opened is at Meriden and is an expansion of the Undercliff Sanatorium, which was turned over to the state. The other hospitals are being built at Huntington in Fairfield County and Newington in Hartford County. Each institution provides 100 beds. Under the law, they will be operated by the state and county for the county in which they are located.

FREE BED FUND REPORT

An interesting report was made by the treasurer of the Cheney Brothers Tuberculosis Free Bed Fund Association at its annual meeting. It showed that there is a balance of \$2,350.75 in the treasury, a large increase over the balance a year ago. The total receipts for the year were \$4,983.15, of which \$1,169.96 was given by Cheney Brothers, and \$1,141.45 was raised among the employes of the company. The expenditures were \$2,632.40, of which \$2,529.65 was toward the benefit account and the rest for expenses. The report of President Howard I. Taylor showed that 10 patients have applied to the association for aid. Three of these were treated at home, two at the Hartford hospital and five at Wildwood hospital on Cedar Mountain. Five of the patients accepted were too far advanced for improvement and died.

BOSTON'S CAMP FOR ARRESTED CASES.

Among the many interesting things contained in the Sixth Annual Report of the Boston Association for the Relief and Control of Tuberculosis for the year ending October 31, 1909, none is more interesting than the description of the experiment now being conducted at the Prendergast Camp for Arrested Cases.

Realizing that about two-thirds of the patients treated at the state sanatorium return to their homes after a residence of from four to six months, with the disease "arrested," and that by their return to former living conditions many relapses occur, a camp was established on the twenty-acre tract given by Mr. Prendergast to the Association for this class of patients. The equipment consists of a simple administration building and a modified Loomis Lean-to, the entire camp costing only \$5,300. No patients who are unable to work are admitted. The camp becomes their home until the cure has become permanent. Each patient pays \$4.00 a week for his board and lodging.

LANDLORDS POST "NO SPIT" CARDS.

An interesting alliance in the campaign against tuberculosis has been formed in Holyoke, Mass., between the local Tuberculosis Association and the Landlord's Protective Association, as a result of which the latter body have agreed to post a framed set of rules for the prevention of spitting and tuberculosis in the hallway of every apartment and tenement house controlled by them. As the Landlord's Protective Association controls from 7,000 to 8,000 of the 10,000 homes in Holyoke, this will mean that 75% of the people will find a reminder to keep them from spitting at the entrance to their apartments.

AN EXAMINATION ON TUBERCULOSIS.

The Salem, Mass., Board of Health has prepared an interesting text-book for use in school grades above the sixth, entitled "The Story of Tuberculosis, Man's Greatest Enemy." The text-book is attractively bound and illustrated. An examination paper, containing thirty questions has been given out to the 3,000 children in all the upper grades of the public and parochial schools. The children are allowed to take the examination papers home, thus stimulating the parents to help them. Some of the best examination papers will be published in the local papers. A few of the questions on the examination paper are: What is tuberculosis? Is tuberculosis inherited? What is the significance of open and closed tuberculosis? Why are bare floors and rugs more hygienic than fixed carpets? Are advertised "cures" of any value? Why should

sick patients not be advised to seek a change of climate?

REGISTRATION OF TUBERCULOSIS A GOOD THING IN BUFFALO.

A report from Dr. F. E. Fronczak, the acting Health Commissioner of Buffalo, shows some interesting results of the work of the inspectors recently appointed in that city for the purpose of more adequately enforcing the tuberculosis law of 1908. The report covers a period of three months, from the appointment of the inspectors, on October 1, to December 31, 1909.

But 540 living cases of tuberculosis were registered in 1907; while in 1908, after the registration law was passed, there were 740 living cases reported, and in 1909 the number increased to 1183, more than doubling the reported living cases in two years. Of this 1183, 452 were reported since the appointment of the inspectors on the first of October. Already there are more than two living cases of tuberculosis reported for every death, whereas two years ago the deaths greatly exceeded the reported living cases.

FORESTERS PROVIDE SANATORIUM.

According to announcements from Saranac Lake, the Independent Order of Foresters have purchased 1,000 acres, including the Rainbow Lake Inn, five miles north of Paul Smith's, for a tuberculosis sanatorium for the members of that order who have tuberculosis.

The buildings now on the property are well adapted to sanatorium purposes, and will provide a capacity for about 50 patients.

The Independent Order of Foresters has a membership of 239,716. Their headquarters are in Toronto, Ont.

TEXAS HAS NEW SANITARY CODE.

That the campaign of education in regard to tuberculosis, begun about a year ago in Texas, is producing results is witnessed by the fact that the State Board of Health of that state promulgated on February 1 a sanitary code, which requires the registration of tuberculosis and all other infectious and contagious diseases. Inasmuch as the State Board of Health has full power in matters of this sort, the new code has all the force of a statute by the state legislature.

The new code includes tuberculosis in the list of "contagious diseases," and requires

that it be reported by all physicians and householders. Provision is also made for the disinfection of dwellings after the death, or removal of consumptives; for the distribution of literature to tuberculosis cases, and for the secrecy of records. Spitting in railway trains and stations is forbidden. The code contains several sections which are doubtful of interpretation, such as the one prohibiting persons afflicted "with any contagious disease, such as smallpox, scarlet fever, diphtheria, measles or whooping cough," from riding in interurban cars, or railway coaches.

CINCINNATI'S WORK.

The Cincinnati Anti-Tuberculosis League has removed to new quarters in a building furnished by the city, in which is located the Health Department Tuberculosis Dispensary. The League is working in the closest co-operation with the municipal authorities. A traveling exhibit has been shown in different parts of the city with an average daily attendance of 360. A school lecturer, who devotes all her time to talking to school children about tuberculosis, has been employed since February 1. These talks, together with the literature being distributed, are reaching a large number of homes.

WHAT WISCONSIN IS DOING.

Nearly \$23,000 was obtained by the Wisconsin Anti-Tuberculosis Association from the sale of Christmas stamps. As a result of the large sum thus realized, a broad program for the coming year is being outlined. The program includes a systematic campaign in the city of Milwaukee and an extended crusade in every large city and town of the state. The State Board of Health and the Extension Division of the University of Wisconsin are working in close co-operation with the State Association.

SOME BILLS BEFORE THE LEGISLATURES.

A bill has been introduced into the Tennessee State Legislature asking for \$40,000 for building and \$10,000 for maintaining a state sanatorium.

A bill providing for the compulsory segregation of dangerous consumptives who refuse to follow proper hygienic precautions at home, has been introduced into the Ohio Legisla-

ture. A second bill asks for \$10,000 for a state tuberculosis exhibition, and another is to compel the erection in cities of special tuberculosis schools.

In the New Jersey Legislature a bill asks for an appropriation of \$25,000 to the State Board of Health for an educational anti-tuberculosis campaign and other work suggested by the Tuberculosis Commission. Another measure before the Assembly provides that anyone desiring to be treated for tuberculosis in New Jersey in anything but a public institution or a private dwelling, must first secure the consent of the State Board of Health.

The Kentucky Legislature is considering the advisability of granting \$180,000 for a state sanatorium.

The Rhode Island Legislature has requested the trustees of the state sanatorium to make an investigation relative to the need for hospitals for advanced cases.

A bill presented by the Massachusetts Commission on Hospitals for Consumptives, asking for an appropriation of \$1,000 for school tuberculosis exhibits, has been favorably reported.

AT THE TUBERCULOSIS SANATORIA.

Some extracts from the annual reports of three state sanatoria for the year 1909 give varied information concerning different phases of tuberculosis work. According to the report of the New York State Sanatorium at Raybrook, the per capita cost for the past year was reduced 52 cents per week to \$8.95. Over 1,000 persons from 27 of the 38 towns of Rhode Island have been admitted to the State Sanatorium at Wallum Lake since it was opened in 1905. At the Michigan State Tuberculosis Sanatorium at Howell, a majority of those who were treated were from rural districts.

RED CROSS STAMP SALE.

Generally speaking, the sale of Red Cross Stamps during December was smaller in large cities where sales had been held in previous years than in the towns and cities where regular stamp sales had not been held before. Only a few places have reported definitely, however. In Rhode Island over \$9,000 was received, nearly one-half coming from Providence. The San Francisco Society cleared \$5,000, and the Oregon state campaign brought in over \$10,000. In New York City over

\$7,000 was realized, while sales at different points throughout the state ranged from less than \$50 to over \$3,000. In Pennsylvania the sales fell off from 1908 in Philadelphia by almost fifty per cent, while they increased materially in the state at large. The Chicago Tuberculosis Institute sold 1,225,325 stamps, while in the state at large over 425,000 were sold. Over 200,000 Red Cross Stamps were sold in Minnesota, \$2,164.78 being realized from the sale. While the Twin Cities and Duluth sold less than one stamp for each inhabitant, twenty-two other towns and cities, none with a population of over 18,000, sold from 4.76 to one stamp for each resident. The sale throughout the state was four times as large as last year.

AN INTERNATIONAL HYGIENE EXHIBITION.

Preliminary announcements of the International Hygiene Exhibition, which will be held in Dresden in 1911, have just arrived in this country. The exact date of the exhibition has not been fixed. It will be held under the patronage of His Majesty the King of Saxony.

The idea of bringing together an international exhibition of the accomplishments of modern hygiene was launched as early as 1903, and in 1906 Dresden was selected for the place. A considerable fund from the government and also from private resources has been secured.

The exhibition will be divided into fourteen groups, as follows: air, light, soil, and water; settlements and dwellings; diet and food-stuffs; clothing and care of the body; professions and trades; infectious diseases; care of the sick and life-saving; children and adolescents; traffic and transportation; military hygiene; hygiene for the tropics; statistics; special groups, including tuberculosis, alcoholism, venereal diseases, cancer, and diseases of the teeth; and historical department.

The list of societies, institutes, congresses and national and international associations which will be asked to participate in the exhibition includes representative social and scientific organizations from almost every civilized country in the world.

The executive committee consists of K. H. Linger, president; Dr. Renk, vice-president; Dr. Leopold, Dr. May, Dr. von Meyer, Herr

Millington-Hermann and Dr. Müller, all of Dresden.

INTERNATIONAL CONGRESS FOR PHYSIOTHERAPY.

Under the patronage of the President of France and under the honorary presidency of the Minister for Home Affairs, the Minister for Foreign Affairs and the Minister for Public Instruction, as well as of the heads of the Municipal Administration, the Third International Congress for physiotherapy will be held at Paris from March 29th to April 2nd of the present year.

The direction of the Congress will be in the hands of Professor Landouzy, dean of the faculty of medicine at Paris. The secretary-general is Dr. H. Vaquez, extraordinary professor of the medical faculty of Paris.

The discussions will take place in seven sections, including those on the use of exercise, massage and rest in treatment; hydrotherapy and the action of cold, heat and air; climate and sea bathing in treatment; electrotherapy; radiotherapy; mineral water treatment and dietetics. Those who will lead the discussions in the different sections, in the order above given, are, Professor Gariel, Professor Carrière, Dr. Huchard, Professor Bergonié, Dr. Bécclère, Professor Albert Robin, and Professor Gilbert.

A TUBERCULOSIS CAMPAIGN IN TURKEY.

American methods of campaigning against tuberculosis are to be employed in a war against this disease in Turkey. Owing to the fact that from one-third to one-half of all deaths in the Ottoman Empire are caused by tuberculosis, strenuous efforts will be made to reduce the mortality.

Through Dr. Emily Ray Gregory, President of the American College for Girls of Constantinople, a committee of prominent Americans and Europeans, together with representatives of the imperial and Municipal Commissions on Sanitation has been formed, and definite steps for a national propaganda have been taken.

Dr. Riffaat Bey, one of the most influential Turkish physicians and editor of a prominent medical journal, and Dr. Bertram Van Dyck Post, American representative on the imperial Commission, are among those who are co-operating with Dr. Gregory.

Already a large amount of literature, furnished by the National Association for the Study and Prevention of Tuberculosis, has been translated into Turkish; lectures in Armenian have been delivered before enthusiastic audiences; and newspaper articles on health topics have been printed, several of them being translations of press bulletins of the National Association for the Study and Prevention of Tuberculosis.

It is planned to prepare a tuberculosis exhibit. The difficulties of language are a serious drawback, since it is necessary to reach, besides the educated classes who read French, Italian, German or English, those also who read Turkish, Armenian, Turkish in Armenian characters, Greek and Hebrew.

Efforts are being made to secure sufficient funds to carry on the work as planned. W. W. Post of the American Bible House, Constantinople, is acting as treasurer of the fund.

MASSACHUSETTS CONFERENCE ON TUBERCULOSIS.

The second annual conference on tuberculosis for the state of Massachusetts was held on March 3 at Boston. The program, which was arranged by a committee appointed at a similar conference last year, included the following papers: "Plan for an aggressive local campaign; Dr. Charles S. Millet, of Brockton; "The control and care of tuberculosis as affected by the laws of the commonwealth," Dr. W. Mark Richardson, secretary of the State Board of Health; and "The relation between state and local work for advanced cases," Alexander M. Wilson, secretary of the Boston Association for the Relief and Control of Tuberculosis. Those who led in the discussions were Miss Mabel L. Greeley, Miss Annie B. Rose, Dr. Carl A. Allen, Wallace Hatch, Dr. A. H. St. C. Chase, Dr. Charles E. Simpson, David F. Tilley, Dr. Arthur T. Cabot and Edward F. McSweeney.

DISTRICT OF COLUMBIA ASSOCIATION

EDITED BY RUTH RIZER, EXECUTIVE SECRETARY

The Tuberculosis Day Class, financially supported by the ladies of the Church of the Covenant, was started in January, 1908. Each year these generous hearted women, under the leadership of Mrs. Truman H. Newberry, have pledged themselves to carry on this work.

Since its inception, 17 patients have been admitted to the class. Six members have been pronounced apparently cured: three have been dismissed because of refusal to follow directions; one has died from a complication of tuberculosis and heart trouble; and seven are still in the class. Dr. B. M. Randolph, physician in charge, passes upon the eligibility of patients before they enter the class, as only the incipient cases are admitted. The fact that six members have been pronounced apparently cured is good proof of the interest and care shown by the physician and nurse. The nurse, who acts as a friendly visitor, becomes well acquainted with the entire family and often helps her patient by helping to solve some of the difficulties in the household life.

Of these six patients, three were tailors and were allowed to resume work under supervision of the nurse some time ago. The other three were housewives who have again taken up their home duties. Three of the patients slept in tents in the back-yard of the Association's Dispensary headquarters. Others who had good sleeping rooms at home were provided with reclining chairs for their rest hours. Eleven out of the seventeen received aid in some form from different sources. The Class Funds provide a number of pensions, special diet in some cases, rent, etc., while other organizations cooperated by giving other necessities.

The educational force of such work can only be realized by those who know the patients and their homes. Windows which were tightly closed before are now open; men who drank and smoked incessantly now refrain; women who were shiftless about their house-keeping now use more care and warn neighbors who are living insanitary lives.

NEW YORK TUBERCULOSIS COMMITTEES TO CONFER

BY JOHN A. KINGSBURY,

ASSISTANT SECRETARY OF THE NEW YORK STATE CHARITIES AID ASSOCIATION

"No uncared for tuberculosis in 1915" is the slogan adopted for a conference of the local committees on the Prevention of Tuberculosis of the New York State Charities Aid Association to be held in Albany on March 18th and 19th, at which President Taft and Governor Hughes will speak.

The conference will be unique in this respect, that it marks the end of the strictly publicity and educational period of the State Charities Aid Association's activity and the beginning of the constructive period of providing definitely for every tuberculosis case in "up-state" New York. In the fall of 1907, with the support of the Russell Sage Foundation, a campaign of publicity was begun, which had for its ultimate object the education of every community in New York State, outside of New York City, in regard to the dangers of tuberculosis and the methods to be taken for its prevention. Since that time, campaigns in connection with the exhibition of the State Department of Health have been held in 27 of the largest cities, and similar exhibitions have been shown at 78 county fairs, two state fairs and in 24 villages. Nearly 400 public meetings with an attendance of 248,649 have been held, and 1,446,052 pieces of literature have been distributed. Sixty permanent local committees have been formed with a total membership of over 3,000. This extensive campaign has lead the State Committee to the conclusion that the time is now ripe for laying aside the emphasis on agitation and the arousal of interest, and for bringing instead the focus of all activity on certain definite constructive programs adapted to the need of every city and town of the state.

The following table, which is both a summary of what has been done and a forecast of

what can be done by 1915, will show what this program of work should contain:—

THE RESULT AND THE FORECAST.

Constructive Measures for the Control of Tuberculosis	Oct. 1, 1907.	March 1, 1910.	Forecast for 1915.
1. State hospital beds...	164	328	1500
2. County hospitals....	0	8	61
3. City hospitals.....	1	8	22
4. Camps	None	6	*
5. Free Dispensaries...	2	13	85
6. Visiting Nurses	2	29	150
7. Localities providing special relief....	2	8	85
8. Reported living cases	2657	6893	All

* Unnecessary.

The above table does not include New York City, nor does it take into account almshouse provision.

The Albany Conference will emphasize the fact that the reduction in the death rate of the state and the several communities will demand a county hospital for every county; at least one visiting nurse for every city and village; a free dispensary in every city or village of 5,000 people or over; the reporting of every living case to the health authorities; the adequate care in a sanatorium or hospital or at home of every tuberculosis case; and disinfection, after every removal or death of a tuberculosis patient, of the rooms in which he lived.

The Conference will be held in four sessions on March 18th and 19th closing with a public mass meeting on Saturday at which the speakers will be President Taft, Governor Hughes, Dr. E. L. Trudeau, Dr. Simon Flexner, Robert W. De Forest and Homer Folks.

The topic for the first session of the conference will be "The discovery and supervision of cases in the home." Papers will be pre-

sented by Hon. Charles C. Duryee, Mayor of Schenectady; Dr. Henry L. K. Shaw of Albany, Dr. H. W. Carey of Troy, Miss Anna Lantz of Geneva, and Miss Ethel Van Benthusen of Albany. The topic of the second session will be "Tuberculosis as a school problem." Among those who will lead in the discussion will be Dr. George W. Golar, Health Officer of Rochester, Dr. Oscar H. Rogers of

Yonkers, and Mr. Leonard P. Ayers of New York. The third session will take up the question, "Institutional care of tuberculosis as the best means of prevention and cure." Some of those who will read papers are Dr. John H. Pryor of Buffalo, John A. Kingsbury, Assistant Secretary of the State Charities Aid Association, and Hon. Eugene H. Porter, State Commissioner of Health.

BOOK REVIEWS

MISSIONARIES OF HEALTH

Just fifty years ago the first visiting nurse started her ministrations to the sick poor in Liverpool, England. The growth of the movement has been remarkable. In the United States alone there are now 566 visiting nurse associations with a total staff of 1,413 nurses. In the past year 112 new organizations were formed. A description of visiting nursing, with a history, a chapter on principles, and a directory of all visiting nursing organizations in the United States, was published recently by Charities Publication Committee of New York, under the title "Visiting Nursing in the United States."* The author, Miss Waters, is an associate of Miss Lillian D. Wald in the famous Henry Street (Nurses') Settlement on the East Side of New York. Among the interesting features of the book are pictures and a full description of the visiting nurse's bag invented at the Henry Street Settlement. The book forms a convincing argument for nursing and educating in their homes some of the sick who will not or cannot go to the hospitals. Miss Waters brought to her book not only the scientific judgment of the trained nurse, but the breadth of view and clear appreciation of social values which come from long experience as a settlement worker on the East Side of New York.

OVER-CROWDING AND ITS REMEDY

A most significant and timely volume has just issued from the pen of Mr. Lawrence Veiller, Secretary and Director of the Na-

tional Housing Association. Its title is 'House Reform,'† and it deals first with the evils of population congestion, and improper housing even where there is no congestion, and then proceeds to an illuminating discussion of the principles underlying successful housing reform.

The book is brought out in the belief that it will be of direct service in encouraging preventive legislation in every state in the Union. It used to be believed that bad housing had to do only with six-story tenements in New York, and possibly Chicago. We know now this is not true. The crowding per room, the dirt, the bad water, the disease, the moral conditions, are often just as bad in a few parts of a small city, or even a village. An investigation in Indiana, for instance, showed that in mere hamlets there were cases of bad housing which threatened the health of the whole community, and it was Jacob Riis, nosing around an alley in Washington, who found the Senate towels drying in the immediate neighborhood of typhoid and tuberculosis. Such discoveries bring home the menace to every one of us.

The thing must be stopped early, by legislation like that in Indiana and Washington, and not be allowed to settle down into the very brick and stones as it has in New York. This book is put out in an attempt to awaken the whole country and to furnish the right sort of ammunition for the recently established National Housing Association with directors in a score of states.

* "Visiting Nursing in the United States," by Ysabella Waters, 8 vo., 357 pages, price postpaid, \$1.25 of Charities Publication Committee, 105 East 22d Street, New York.

† "House Reform," by Lawrence Veiller. One of the Russell Sage Foundation Publications. Published by the Charities Publication Committee, 105 East 22d Street, New York. Pages, XII, 213. \$1.25 postpaid.

SANITATION

Two books of special interest to the builders of sanatoriums have recently come to us from the publishing department of the Standard Sanitary Manufacturing Company. The publishing department of this company is the outgrowth of what was originally intended to be an advertising department, but these two books certainly smack not at all of publicity. Their titles are "Sewage Purification and Disposal,"¹ and "History of Sanitation,"² and both are written by J. J. Cosgrove.

The "History of Sanitation" describes the various systems of sanitation and water supply from the earliest times of which we have record down to the present. The drawings and illustrations are particularly good and suggestive.

While the greater interest attaches to "History of Sanitation," "Sewage Purification and Disposal" has the greater practical value. Its style is not technical and it gives in 15 chapters and an appendix an excellent discussion of the various methods in use by sanitarians. There are 24 tables and 71 illustrations.

Those who suddenly find themselves confronted with the necessity of solving the important problems of sanitation, but without previous experience in this direction, will do well to read these two books.

¹"Sewage Purification and Disposal," by J. J. Cosgrove. 222 pp., 71 illustrations, 24 tables. Cloth bound with gilt edges. Publishing Department, Standard Sanitary Manufacturing Co., Pittsburg, Pa. \$3.00 postpaid.

²"History of Sanitation," by J. J. Cosgrove. 124 pp., 78 illustrations. Cloth bound with gilt edges. Publishing Department, Standard Sanitary Manufacturing Co., Pittsburg, Pa. \$3.00 postpaid.

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A CONFERENCE WITH A PURPOSE

BY JOHN A. KINGSBURY,

ASSISTANT SECRETARY OF THE NEW YORK STATE CHARITIES AID ASSOCIATION

"No Uncared-for Tuberculosis in New York State in 1915," was the watchword of the Conference of the State Charities Aid Association's Sixty Local Committees on the Prevention of Tuberculosis, held in Albany, March 18 and 19, in which the President of the United States and the Governor of the Empire State participated, and to which messages and letters were sent by the world's greatest experts in this field, including Koch, Newsholme, Philip, Trudeau, and many others. Seldom is an opportunity given to attend and to take part in a conference in such distinguished company, even to men of great prominence, and full advantage of this fact was taken by the State Charities Aid Association, especially in picking its audience.

Ten thousand invitations and programs which were sent to all the leading public officials of the State, and to men and women of prominence in philanthropic and social work, were something more than invitations or programs. The very neat 12-page brochure, which contained the invitation and program, was an important campaign document as well. The page facing the program of each session was intended to stir the reader's interest in the combat against tuberculosis. Directly following the invitation to attend the meeting at which the President and the Governor were to speak, and opposite the page containing the program of the first session, this is what caught the reader's eye:

THE OBJECT OF THIS CONFERENCE IS:

To put before the Sixty Local Committees on the Prevention of Tuberculosis of the State Charities Aid Association, and before the public officials and the people of the State, in the strongest possible light, a comprehensive program for the provision of dispensaries, nurses, hospitals and other preventive agencies, to be secured in the next five years, to the end that we may have in New York State

NO UNCARED-FOR TUBERCULOSIS IN 1915

At the same time we wish to put prominently forward a thoroughly conservative and

scientific estimate, endorsed by the highest medical authorities, as to what we may expect to accomplish in

THE REDUCTION OF THE TUBERCULOSIS DEATH RATE BY 1920:

- If every county has a tuberculosis hospital or sanitarium by 1915;
- If every city and every village has a visiting nurse;
- If every city and every village of over 5,000 people has a free dispensary;
- If all the living cases of tuberculosis are reported to the health officer;
- If every living case is in a hospital or sanatorium, or under proper supervision at home;
- If disinfection after every removal or death of a tuberculosis patient is thoroughly done.

This program was sent to ten of the highest medical authorities in the world with a letter asking what is the most that can reasonably be expected in the way of reduction in the death rate from tuberculosis in New York State, if the Association accomplishes its aim of "No Uncared-for Tuberculosis in 1915." Some of the replies were naturally more conservative than others, but all were most gratifying and encouraging, and they were received by the Conference with great applause. "Your program is the best I know to reduce the death rate from tuberculosis in the shortest time possible," was the extremely interesting and effective cable message which was read from Dr. Robert Koch, who, twenty-eight years ago, discovered the germ which is the cause of tuberculosis and thus enabled the world to carry on this great warfare against one of the most terrible diseases that flesh is heir to.

Scarcely less notable was the message from Dr. R. W. Philip, of Edinburgh University, the "Father of the Tuberculosis Dispensary." Dr Philip cabled:

"Prosecute the great program proposed; watch the child as a potential tuberculosis seedling; correct faulty compulsory environ-

ment, and you may expect a 40 per cent. reduction in death rate from tuberculosis by 1920 and practical disappearance within generation and a half."

One of the most encouraging letters received was from Dr. Frank Billings, of Chicago, who wrote in part:

"At that time (1915) with at least one dispensary in every county in the state and an additional dispensary in every city and village of over 5,000 inhabitants, with a tuberculosis hospital with ample provision for the humane care of moderately advanced cases in every county, with efficient registration of substantially all living cases in the state, with adequate disinfection of all infected foci and with proper provisions for the social relief of wage earners, the disease should be practically driven from the state within the next five years, or by 1920.

"If New York State will carry on this propaganda in the fight against tuberculosis as may be done successfully, it will not only relieve the citizens of that state, but will afford an example to the rest of the world and thus in all probability, be the means of saving thousands of lives of citizens of other states."

Dr. Trudeau, who, his health permitting, was to have spoken at the meeting, sent a letter which had a profound effect upon the large audience which listened almost breathlessly as it was read. The opening paragraph of that letter, one which will stir to the very depths every worker in this great cause who happens to read it, is as follows:

"It is with the deepest regret that I find the state of my health will not permit me to leave home and be present on an occasion which marks an epoch in the history of the Anti-Tuberculosis Crusade in New York State. Could I be with you at this meeting, I should feel as a scout, who has done duty for many years on a distant post, might feel when brought into the presence of a well organized army. There was no army at all when I began my work at Saranac Lake 25 years ago; the only warfare against tuberculosis was carried on for many years by desultory skirmishes here and there, and the outlook was hopeless."

The entire letter is a gem of literature, as well as a striking and stirring battle cry. It is a pity that space will not permit its publication in full and that brief extracts must suffice:

"That such an organized host has sprung to life at the call of education and of the State Charities Aid Association, is cheering indeed, and is the best evidence that the people are aroused and that the ultimate control of tuberculosis is the goal toward which they are relentlessly moving. * * * * Desultory, scattered and unrelated measures will accomplish little. Cooperation and coordination are the ways of success. What we need is a thorough application of a well thought out pro-

gram, one in which all the different agencies, such as registration, the dispensary, the visiting nurse, the open air camp, the fresh air school, the sanatorium and hospital for advanced cases, work together as a harmonious and effective whole and not independently of each other. * * * * To be effectual, any program must be thorough and will require large sums of money. This should be forthcoming, if only because it is a waste of money to spend it on half-hearted, desultory and unrelated measures which are of little avail. The first goal to reach is the care of all sources of infection, and the slogan of your meeting is an admirable one. * * * * It is evident that the people are at least aroused; more comprehensive and better organized forces will constantly be called into action and mankind will ultimately triumph.

"As a pioneer and veteran, I send my best wishes to the great anti-tuberculosis army in the State of New York, and bid them God-speed in their great undertaking."

Space forbids more than the briefest extract from each of the other very interesting and illuminating letters:

Dr. Bowditch, of Boston, wrote: "I firmly believe that by following out the methods now being adopted with such overwhelming force, the desired end will be surely accomplished, if not in our own time, yet in the not very distant future."

Dr. Janeway said: "The results so far witnessed in New York City and other places, warrants the expression of the opinion that such material decrease will happen. In New York State it has amounted to nearly 50 per cent. and the same is true of some other places. It seems as if in interior cities and in more urban localities a greater and more material decrease ought to be obtained."

Dr. Arthur Newsholme, of London, wrote: "Whether infection from tuberculosis is entirely stopped or not will depend on two factors. First, on the extent to which advanced cases are treated in suitable institutions, and secondly, on the success of your propaganda of education. You are evidently working in both of these directions with great activity, and can therefore expect that the death rate from tuberculosis in 1920 will be much lower than it is at the present time, probably remarkably lower."

Dr. Biggs, another great administrator of public health wrote: "It is my belief that by 1920, if the proposition of the State Charities Aid Association can be accomplished in 1915, a further decrease in the death rate in this state of more than 50 per cent. may be brought about. In other words, that eight thousand lives a year (including New York City), for the most part in the early working period of life, may be saved to the state, and an incalculable amount of suffering, misery and destitution prevented. After a very large

experience in the study of the sanitary surveillance of tuberculosis in New York City, covering a period of nearly twenty-five years, I am of the opinion that the above is a conservative estimate of the possibilities."

Dr. S. Adolphus Knopf gave the following significant statement: "If such a thing as having in 1915 no uncared-for cases of tuberculosis among the poor as well as among the rich, all stages and kinds of tuberculosis being included in this category, would be possible, the reduction in the morbidity and mortality from tuberculosis in New York would be, five years later (in 1920), at least 75 per cent."

Dr. Simon Flexner, in a most interesting address at the final session of the Conference, gave expression to many extremely significant statements regarding the program for "No Uncared-for Tuberculosis," of which the following is a sample:

"Since it has been possible in a period of a little more than ten years to reduce the death rate from tuberculosis in New York City by more than 40 per cent., and this in spite of its congested tenements, its foreign and ever-shifting population, and its lack of suburban outlets, it requires no gift of prophesy to foretell that once the State of New York is aroused to its responsibility and opportunity in this field of human endeavor, its record will surpass that of New York City and become the equal of the best to be found in the world. Merely to reduce the death rate in the state, outside of New York City, by 50 per cent. for which the method lies clearly exposed, would mean the saving of three thousand valuable lives annually, and the sparing of an immeasurable amount of suffering, a vast deal of poverty and much treasure. And I hope and expect to see this result surpassed in the next decade. * * * * It is significant that the falling in the death rate from tuberculosis is found to be going on precisely in those countries and exactly in proportion to the extent in which hospital and sanatorium care of the tuberculous has been provided, while in countries in which this provision has been neglected, the death rate has remained high."

Such striking endorsements of the program presented at this conference is of tremendous significance. It is so significant because it applies with equal force to the work which every other state and local organization in the country is doing; for the program itself is in no respect novel, unless indeed it be in the setting of a definite date for its completion. Hon. Homer Folks, Secretary of the State Charities Aid Association, in opening the Conference at Albany, said: "Some conferences are just plain meetings, others have a definite and specific purpose; this conference is one of the latter sort." The definite purpose of this conference was to set forth a plan for no uncared-for tuberculosis in the State of New York in 1915, and to gain for it the

widest possible support. This was the main purpose; but the main purpose involved a number of minor purposes of no mean proportion, among which the following may be mentioned:

"In the first place it was the purpose of the State Charities Aid Association to serve notice upon the local committees, so to speak, and upon the people of the state, that the campaign against tuberculosis was entering actively upon the second stage, viz., the stage of constructive development. In other words, the local committees were given to understand that the stage of educational propaganda pure and simple would be left more completely to the localities and that the State Charities Aid Association would hereafter devote increasingly more attention to the direction and support of the local committees in securing the adoption of constructive measures for the control of the disease.

"In the next place the Association desired to put before committees a very definite constructive program calling for the provision of nurses, dispensaries, hospitals and other agencies, in practically every city and village in the state by 1915.

"As the third minor purpose, it was proposed to furnish the very best expert information on all the important measures, the establishment of which were sought at the hands of the various localities, and to give an opportunity for discussion by members of local committees and by public officials, and to afford also the opportunity for questions regarding the establishment of dispensaries, supervision of cases in the home, and the hospital care and treatment of tuberculosis.

"Fourth to offer an opportunity to assemble in convenient and interesting form this expert opinion regarding hospital and sanatorium treatment, the work of relief stations, the visiting nurse and other agencies, so that it could be placed in shape for ready reference before the many new committees of the Association which are now becoming too numerous for frequent visitation by members of its staff.

"Fifth, to furnish an occasion for putting the gist of the constructive program for the control of tuberculosis before all the prominent public officials of state, counties, and municipalities, and before all influential people whose support and interest is sought, in such a way as to insure its being carefully read. This was to be accomplished by combining the invitation and program with a campaign document such as described above.

"Lastly through the medium of the press, to strongly impress the public mind of the state with three facts:

"1. That the claims made regarding the prevention and cure of tuberculosis are not empty assertions, but that they have the support of the highest medical authority of the world and the confidence of the leading laymen of the land.

"2. That the provision which should be made for the care and prevention of tuberculosis is well recognized, simple and comparatively inexpensive.

"3. That the adoption and enforcement of these provisions and measures for the control of tuberculosis will be speedily followed by most gratifying results."

Whether or not the Albany Conference will succeed in its main purpose remains to be seen. Yet some are optimistic enough to believe that the hope expressed in the slogan, "No Uncared-for Tuberculosis in 1915," is a hope that will not be long deferred, and every effort will be made to enable the Empire State to come as near as possible to its realization. The minor purposes, however, contributing to this main purpose, have in a large measure already been fulfilled. The change of the emphasis from the educational to the constructive stage has taken place and is realized by all local committees; a definite program has been placed before the committees and all those who attended the conference heard it discussed by the leading experts of the state and nation; these papers embodying this expert opinion have received very wide publicity and are now being put in pamphlet form for convenient use of committees; there can scarcely be any doubt that all the prominent individuals and public officials receiving invitations to attend the meeting at which President Taft spoke are familiar with the program for "No Uncared-for Tuberculosis," and appreciate what is necessary for its realization; an abundance of press clippings testifies that the newspaper readers in almost every city and village in the state again and again, during the three weeks preceding this conference, had thrust upon their attention the authoritative claim made as to the prevention and cure of tuberculosis; the fact that the measures for stamping out this disease are simple and inexpensive, and that the enforcement of these measures will be followed by a great saving of human life within the next decade.

This Conference of Local Committees was undeniably the most important event which has taken place in the campaign against tuberculosis in New York State outside of New York City. The Sixty Local Committees on the Prevention of Tuberculosis of the State Charities Aid Association represent all the leading second and third class cities and most of the larger villages of the state. The total recorded attendance at all sessions amounted to 3,776, of which about 3,000 attended the final meeting at Harmanus Bleeker Hall, the largest hall in Albany, which was literally packed to its doors. This was the meeting at which President Taft, Governor Hughes, Dr. Simon Flexner, Hon. Robert W. de Forest and Hon. Homer Folks were among the speakers, and over which presided the Hon. Joseph H. Choate, ex-Ambassador to the court of St. James. The large audience that greeted these speakers was not made up

of the people of the City of Albany, but was carefully picked from all over the state. There were state and local officials, consisting of mayors, commissioners, aldermen, health officers, county supervisors, and there were more than 600 representatives of local committees in attendance representing sixty cities and villages and thirty-six different counties. At the other three sessions, at which the "1915 Program" provisions were considered, there was an average attendance of 258, most of whom were delegates from local committees.

At the first session of the Conference, at which Hon. Homer Folks presided, the topic for discussion was the "Discovery and Supervision of Cases in the Home."

The topic of the second session, Prof. George F. Canfield presiding, was "Tuberculosis as a School Problem."

The third session was given over to the consideration of "Institutional Care of Tuberculosis as the Best Means of Prevention and Cure."

President Taft strongly urged the necessity for a National Bureau of Health and emphatically endorsed the campaign against tuberculosis, saying: "I doubt not that under the direction of such doctors as Trudeau and the other authorities you have, the rules have been developed to such a point that if followed out, slowly progressing into each community, we shall reach the stage in 1915, or later, that we contemplate where this dreadful scourge of mankind shall be conquered as we have now conquered malaria and we have now conquered the yellow fever."

Governor Hughes' address fairly bristled with striking statements which bore evidence of his intense interest in and keen appreciation of the importance of the campaign against tuberculosis.

"I would rather have the President of the United States witness a demonstration of this sort in organized philanthropy," said Governor Hughes, "than see any of the financial, commercial or industrial undertakings of which we are wont to boast. * * * * * If we carry out these programs and provide the laws and the hospitals and the dispensaries, we must ultimately rely upon both the good faith and the ability, the professional ability, of the average physician, to make a correct diagnosis, to promptly report what he may find to secure an adequate supervision, or else all our plans will go astray. I have confidence that that great responsibility will be met. If we can have united endeavor on the part of our lawmakers and our executive officers, supported by intelligent sentiment of the community and reinforced by the scientific and skillful effort of the medical profession, we shall put a stop to this scourge, and the slogan now, "No Tuberculosis Uncared-for in 1915," will bring us ultimately to a time when we shall not only care for all cases, but see the absolute end, practically, of this great evil in our state."

ENFORCEMENT OF THE TUBERCULOSIS LAW

BY HON. CHARLES C. DURYEE,

MAYOR AND EX-HEALTH OFFICER, SCHENECTADY, N. Y.

The year 1908 was epoch making in public health lines in the State of New York. Chapter 351, Laws of 1908, "An Act defining the powers and duties of local health officers and boards of health in the matter of the protection of the people of the State of New York from the disease known as tuberculosis," is the most important statute ever enacted in this state affecting the development of the work of local health authorities. It removed tuberculosis, one of the most prevalent and widely scattered of all diseases, from the range of what we may call personal and individual responsibility to that of social responsibility, and made the health officer the chief factor in the enforcement of that social responsibility.

It is well to look squarely in the face the fact that among the poor, who constitute a large proportion of the total population of the state, diseases which develop slowly and run a comparatively long course are apt to have little remedial medical treatment. The physician is not called in as a rule until the disease has developed to an extent which interferes with the daily work of the patient. It has then passed, in many cases, the stage of remedial treatment, and even if there be hope of recovery the family feels itself under the necessity of curtailing every possible expenditure. It wants as few visits of the physician as possible. It is not able to employ a nurse, nor to provide those special foods, facilities for isolation of the patient, and all the other safeguards which make illness so extremely expensive in the families higher in the scale of living. While the well-to-do person has physician and consulting physician, night nurse and day nurse, separate quarters, special food, trips to the South and to the North, to the East, and to the West, the poor person suffering from the same disease puts up with a few calls from a physician, whose charges are expected to be low, and such nursing as can be given by already overworked members of the household. The comparatively few who find their way into the hospitals receive adequate treatment, but home treatment of the sick is apt to be, in large areas of our population, extremely inadequate.

A very different situation has existed for some years in regard to a few diseases, such

as smallpox, scarlet fever and other acute contagions. As to these, it has been recognized in law and in practice that they are a menace to the entire community, that their adequate treatment and adequate protection of the household is not a matter to be determined by the ability of the particular patient to pay therefor, but is to be determined by the resources of the public treasury and the efficiency of the local health administration. It is recognized that illness of this character is the concern, not of the individual patient, nor of the individual household, but of the community as a whole; that equal standards of efficiency of treatment, of medical oversight, of nursing, of isolation, of food, of disinfection, and the other safeguards employed in sanitary supervision should be employed to all alike; that none should be too poor to receive such assistance, and none sufficiently rich to escape therefrom.

The great significance of Chapter 351, Laws of 1908, is that it removed this very prevalent, one might say universal, disease which is always with us, which is to be found in every quarter of our cities, from the first category and placed it in the second. It thereby made the local health officer a most important personage, not only on those rare occasions when a locality is visited by an epidemic of smallpox or other acutely contagious disease, and not only in the particular locality in which that disease may appear, but in every portion of the locality, and every day of the year, for tuberculosis is to be found everywhere and at all times; and by this law the local health officer is made the chief instrumentality through which social responsibility for its eradication is to be enforced. No other single step has so enlarged the functions, elevated the position and increased the prestige of the health officer as the enactment of this law.

The indirect effects of this legislation upon the position of the public health officer are bound to be most important. Without entering upon them in detail at the moment, it seems certain that the imposition of these far-reaching and continuous responsibilities upon the local health officer must be followed, first, by a more general recognition of the fact that the health officer must be specially qual-

ified for his post, must be a man of standing, influence, and weight in his profession and as a citizen; and secondly, the imposition of such far-reaching and important duties must of necessity be followed by a corresponding increase in the remuneration attached to the position.

Chapter 351, Laws of 1908, when enacted was without doubt somewhat in advance of public opinion as it then existed in this state. It contained some provisions which probably a majority of the health officers of the state would at that time have pronounced impracticable. Whatever may have been the case at that time, however, public sentiment has had an extraordinary awakening during the two years that have elapsed since the enactment of the law. The sending of tuberculosis exhibitions to cities and rural districts, to county and state fairs, the distribution of leaflets, the maintaining of a press service, and other educational propaganda, have radically changed the situation, and to-day he would be a rash health officer who assumed that the sentiment of his community did not demand the enforcement of such a law. That public sentiment has been educated up to the law is perhaps indicated by the fact that no demand for its repeal, nor for its serious modification has been received from any quarter.

What, then, are some of the provisions of this law, and what are some of the methods by which it should be enforced? It imposes certain duties upon health officers directly and explicitly; it imposes certain other duties upon them by implication, or upon health officers in equal degree with all other citizens.

The opening section of the bill imposes a most serious duty, not directly upon health officers as such, but upon physicians and upon all other citizens to whom the presence of a person having tuberculosis becomes known. It requires that such fact shall be reported within twenty-four hours by such physical or other person to the local health officer. The local health officer is not specifically directed or required to enforce compliance on the part of physicians with this statute, but as compliance on the part of physicians is the foundation upon which all the subsequent work of the health officer in dealing with tuberculosis is based, it is certainly an implied duty of the health officer, as of all other citizens, to promote a complete registration of all cases of tuberculosis. This should certainly be done so far as possible, by persuasion, by pointing out the important results which registration is expected to accomplish, by calling attention to the solemn duty imposed upon every physician to comply with the law deliberately placed upon the statute books by the representatives of the people and expressing the consensus of opinion of the people of the state on a most important subject. That great progress is being made in this direction is evidenced by the fact that

the number of living cases of tuberculosis reported to local health officers in New York State outside of New York City increased from 2,657 in 1907 to 6,893 in 1909. The number of cases now reported is well in excess of the annual number of deaths, and there appears to be every reason to believe that with a continuation of the present measures throughout the state, of education and of agitation, we shall have considerably before 1915 as complete a register of cases of tuberculosis in the small cities and villages of the state as now exists in the great city of New York. And if in some localities physicians shall be so lacking in public spirit, in respect for law, in regard for the good name of their profession, as to deliberately and defiantly refuse to comply with the law, they should be taught by the machinery of the courts, and, if need be, on the complaint of the health officer or of an official of a tuberculosis committee, that the law is no respecter of physicians, that statutes are enacted to be enforced, and that trifling with the law providing for the registration of tuberculosis is not an unimportant act.

In the next place, it is made the duty of the health officer to either make or cause to be made a microscopic examination of any specimen of sputum forwarded to him by any physician as that of a person having symptoms of tuberculosis. Such examination can always be had without trouble by forwarding the specimen to the laboratory of the State Department of Health in case no local laboratory be available. The fact that such analysis is to be provided free of charge under the law will doubtless prove generally, as it has already in some localities, one of the important factors contributing to securing complete registration.

Another duty imposed upon physicians, and, in the absence of a physician, upon the owner or person having charge of any apartment or premises, is that of notifying the health officer in case of the removal therefrom of a person having tuberculosis. Upon the receipt of such notification a most important duty devolves upon the local health officer. There is no ambiguity, no uncertainty, no qualification; he is directed to visit within twenty-four hours such premises; to see that they are suitably disinfected, cleansed, or renovated; to oversee and direct the disinfection, if in his judgment disinfection only is required, or, if a more thorough-going renovation of the premises be necessary, to direct exactly of what such renovation shall consist, and see that it is carried out.

Registration of tuberculosis has been too often treated as though it were an end in itself, and as if the mere fact of having the name and address of tuberculous patients registered in the health office had, in itself, some remedial result. Of course, nothing could be further from the fact. Registration is only the first step toward

remedial results; it is only a means toward an important end, and that end is the sanitary supervision of the patient in his home or his removal to an institution, if that be desirable. The steps to be taken in securing such sanitary supervision are very clearly outlined in detail in the law. Upon the receipt of a notification of a case of tuberculosis, it becomes the duty of the local health officer forthwith to transmit to the physician reporting the case a printed statement, approved by the State Commissioner of Health, outlining the procedures and practices which it is necessary to take upon the premises and in the household of the tuberculous patient, in order to secure the protection of the other members of the household. The procedures and practices enumerated in this document may be taken by the physician who has thereupon to sign and return the document to the local health officer; or, if he be either unwilling or unable to carry into effect these steps, all he is required to do is to state in writing, returning the paper to the local health officer, whereupon all these duties devolve upon the health officer. If the physician himself undertakes this sanitary supervision, the local health officer must examine carefully the report to ascertain whether the steps taken seem to him sufficient, and if not, he may require other and further steps to be taken for the protection of the household. These precautions called for by the report which has received the approval of the State Health Commissioner include in effect the following:

- (a) Washing, cleaning, and (if necessary) disinfecting the premises.
- (b) Discontinuing dry sweeping and dusting in patient's room.
- (c) Advising against other persons sleeping with patient or in same room, and against permitting children to play on the floor or frequenting patient's room.
- (d) Instructing patient as to disposition of sputum.
- (e) Instructing patient to hold handkerchief or cloth before mouth when coughing or sneezing, and as to disposition of such handkerchief or cloth.
- (f) Instructing patient as to washing and disinfecting hands, and as to a thorough cleaning after any other accidental contact with sputum.
- (g) Instructing patient (if a mother) as to the danger of nursing or kissing an infant.
- (h) Instructing family as to disinfection or boiling patient's clothes before mixing with other laundry.
- (i) Probably most important of all, examining all other members of the family for tuberculosis, with full statement as to any other cases of the disease in the household.

Another step which the local health officer is required to take is to send to the

physician a printed requisition indicating the supplies which are kept on hand by the local health officer for use in preventing the spread of the disease. It becomes also the duty of the health officer to supply such materials as may be called for by the physician.

The third step which the local health officer is required to take is to send the physician reporting a case of tuberculosis, or direct to the patient, if the report comes from a layman, a circular of information approved by the State Health Commissioner, which should inform the patient of the best treatment of the disease and of the precautions necessary to prevent giving the disease to others.

These provisions in regard to procedures and precautions, while they necessarily seem somewhat involved when stated in technical and statutory language, are the vital feature of the 1908 law. If fully carried into effect they would secure sanitary supervision, the content of which is prescribed by the highest health authority of the State, the carrying out of which is under the supervision of the local health officer, the actual administration of which is in the hands of the attending physician unless he voluntarily turns it over to the health officer.

Other provisions of the statute, e. g., those providing for the arrest of persons who insist upon spitting, providing for the registry of tuberculosis patients, for the report of recovery of patients, and providing various penalties for the violation of the law, do not require further comment.

Another important aspect of the law in relation to sanitary supervision of the home is the provision (Section 8) that in case a patient has no attending physician, but is brought to the knowledge of the health officer from any other source, the duty of exercising complete sanitary supervision of the patient and his household devolves upon the health officer. It is not optional with him; it is mandatory. He becomes, in fact, a travelling dispensary, carrying to the home of every such patient all the instructions, facilities and responsibilities, not only for the treatment of the patient but for the treatment of other members of the household. In one respect the law is inadequate. It provides that for the performance of all these services the health officer, or the attending physician, if he performs them shall receive a fee of the large sum of one dollar. This would be a small amount for one visit, but the supervision contemplated by the statute implies a more or less continuous oversight for a long period of time. In any subsequent revision of the law this is probably one point on which the remuneration of the health officer could be made more nearly in keeping with the extent and responsibility of the duties performed.

THE PHYSICIAN'S DUTY AND OPPORTUNITY IN THE ENFORCEMENT OF THE TUBERCULOSIS LAW

BY HENRY L. K. SHAW, M. D.

SECRETARY OF THE ALBANY, N. Y., COMMITTEE ON THE PREVENTION OF TUBERCULOSIS

The highest duty and most altruistic service of the physician is to prevent disease. Smallpox by the discovery of a medical man and through the persistent efforts of medical men is no longer regarded as a scourge. Typhoid is a preventable disease and it has been eradicated where the counsels of the medical profession have been heeded. Fifteen years ago it was unsafe to drink the Albany water. The doctors of the city educated and agitated public opinion so that a scientific filtration plant was constructed and to-day typhoid fever is practically unknown. So with the great problem of tuberculosis which we are all striving so hard to solve. The public are fast being educated and there is a most determined and commendable effort on the part of all classes and professions to stamp it out as effectively as smallpox. The chief responsibility, however, rests upon the physician, and he is a traitor to himself and to the noblest of professions if he shirks his duty in the slightest.

The concensus of opinion among the students of this subject is that prompt notification of each case to the proper authorities, as is done with other communicable and infectious diseases, is essential in the control of tuberculosis. When this plan was first proposed many objections were raised. Some physicians opposed such a course, fearing that a stigma would be placed on the person and the family in which the disease existed. They believed that patients would be shunned and variously injured if it became known that they had tuberculosis. Physicians are not only conservative but they are often suspicious and jealous and a few, perhaps, would not report a case assuming that their patients would employ another physician who did not report his cases.

Great pressure is sometimes brought to bear on physicians by the family when a patient dies of tuberculosis to ascribe the death to some other cause, for fear that when the insurance papers are filled out the company will refuse to pay the claim if the death is due to tuberculosis.

These are some of the reasons why the medical profession as a whole is dilatory and rebellious about reporting cases of tuberculosis. The public are also at fault, but their opposition is chiefly due to ignor-

ance as to the nature and communicability of the disease.

Dr. Trudeau stated several years ago that "the first requirement for the control of tuberculosis is the registration of all cases; for how the authorities can take proper action, or, indeed, any action at all until they know this, seems questionable. Where registration has been practically tried there has not been found one single valid objection to the regulation requiring the reporting of cases of tuberculosis."

Through the efforts of the State Charities Aid Association a tuberculosis law was drafted and presented to the Legislature in 1908, and became a law with the approval of the Governor on May 19, 1908. A copy of this law should be placed in the hands of every physician in this State and it should be carefully studied. The courts hold that ignorance of the law is no excuse for not fulfilling its provisions. Physicians are not a class of law breakers and dodgers. It is not only their duty to enforce the present tuberculosis law, but it should be considered an opportunity to render a definite service to humanity. Non-compliance with the provisions of this law by many physicians is due not alone perhaps to ignorance but because they regard them simply as suggestions or recommendations. They do not seem to realize that this is a law of the State and is to be obeyed and followed whether they agree with it or not. In other words, there is now a very strong moral obligation imposed on every physician who attends a case of tuberculosis.

The law is only the first step and is but the means to an end. The end is sanitary supervision of the patient in his home, and the protection of other members of the household and of the community at large. This often consists of procuring and providing hospital or sanitarium care for the patient.

Time does not permit a detailed analysis of the excellent and able provisions of this law. There are a few points however, which I desire to emphasize. Provision is made to relieve the attending physician from the sanitary supervision of the case and the protection of the family if he so desires by turning this over to the local health officer who can, and I believe should, accept this responsibility. This interferes

in no way with the physician's actual care, treatment and management of his case. This is an age of specialization and the sanitary oversight naturally belongs to the health officer. He should be an experienced and trained man who can devote all his time and attention along these lines. The office of the health officer should not be filled on account of political affiliations and preference but it should be awarded solely on merit and special training. The prestige of that office would be raised and its emoluments increased. Specialization in sanitary and public health matters would tend to greater efficiency.

Section 4 of the law requires the physician to notify the health officer in the case of the removal of a patient having tuberculosis in order that the health officer may provide for the disinfection and sanitation of the premises. The necessity for this in the control of the disease is self-evident but I am told that very few physicians comply with the provisions of the law. Explicit compliance with this section I believe is imperative.

The whole process which the tuberculosis law aims to build up rests upon the co-operation of the physician in reporting cases. Failure to report prevents the employment of other agencies, including the dispensary clinic, visiting nurses, special relief, disinfection, etc.

The physician, therefore, in failing to report cases, is really blocking the operation of the entire machinery which has been so

laboriously and expensively elaborated for dealing with this situation. Notification and registration are the first steps and require little or no effort on the part of the physician, but it is imperative and absolutely necessary if further steps are to be taken.

The law implies, but unfortunately does not definitely state, that where a case of tuberculosis is discovered the physician should examine all the other members of the household. This is of great importance and would do much towards the prevention and relief of the disease.

The attempt is made in France to remove apparently healthy children from intimate association with their tuberculous parents. The tendency in this country, perhaps, is directed more to the removal of the tuberculous subject from the home. There is wisdom in both courses and every case requires individual consideration.

The opportunity afforded the physician in complying with these statutory provisions lies in his becoming part of the machinery of administration working for the public good. It will tend to make him less individualistic, which is perhaps one of his most unfortunate tendencies, and give him a certain participation in the affairs of the community and the city.

There is a steadily increasing demand for experts in public sanitation and this opens up a new field for medical men which in time will lead to greater opportunities for the public service, the protection of the community, and personal preferment.

THE ROLE OF THE DISPENSARY IN THE ENFORCEMENT OF THE TUBERCULOSIS LAW

BY HARRY W. CAREY, M. D.,

SECRETARY, TROY TUBERCULOSIS RELIEF COMMITTEE

Thus far the Dispensary has been absorbed to too great an extent in the care of the sick, so much so that the protection of the well has been more or less a secondary matter. Now the Dispensary has two duties to perform: First, to treat the patient, and second, what is vastly more important, to protect the family both by the means at hand and by accumulating all the information possible upon which to extend our knowledge of the spread of tuberculosis both locally and in the state and nation.

Both of these obligations can be fulfilled by the Dispensary in the enforcement of the Tuberculosis Law. With the public quickly learning to turn to the Dispensary for friendly advice and assistance, and with the number of Dispensaries increasing to meet

the demand for them, there can be no more powerful agent in the entire machinery of the tuberculosis crusade than the Dispensary in the enforcement of the law.

Not only are the patients coming to the Dispensary of their own accord, but they come at the suggestion of interested friends, on the advice of physicians and visiting nurses, and even now I venture to say that more patients are under control through the reports from the Dispensaries in localities where they have been established than from any other source. I know this is true of Troy. The health officer tells me that 286 cases of tuberculosis were reported in 1909, and 141 of these were reported by the physicians at the Dispensaries, or the Relief Stations as we call them. There were

249 specimens of sputum examined by the Health Department during the year and 125 of these were submitted by the Relief Stations. In other words, the two Relief Stations have done half as much in contributing to the enforcement of the Tuberculosis Law as all other agencies in Troy combined. I believe the same statement will apply to any city with Dispensaries, and possibly to a greater extent than in Troy.

With hospitals in each county, with greater and greater provision for tuberculosis patients, the Dispensary will be as it is fast becoming now, a clearing house through which patients are apportioned to this or that hospital or sanatorium. The number of patients to be cared for at home will be reduced to a minimum, so that the chief and most important aim of the Dispensary will be to uncover the new foci of infection and take the proper steps to destroy them.

Developed to its highest efficiency, the Dispensary can discover even more new points of infection than at present by an aggressive policy of going out to find the cases and not waiting for the cases to come to the Dispensary.

It is not my purpose to discuss how the Dispensaries can enforce each section of the Tuberculosis Law. I wish only to call attention to the section relating to disinfection, which provides for a disinfection of the premises after death or removal. The Dispensary should not only aid in this precaution, but should in every instance request disinfection at once and at intervals afterward for the greater protection afforded others in the house.

Now the question will no doubt arise as to what practical value can be derived from the mass of information required in the complete statement of procedures and precautions

provided for in Section 9. This information is of the greatest value, particularly when coming from the Dispensaries, which have so many cases under their control. The data collected in this way will point the way to a more complete and perfect method of prevention, to a strengthening of the weaker parts in the sanitary precautions.

From the cases already reported from the Dispensaries of the state, I believe it can be proven without question that greater authority should be given to the Department of Health to restrain persons having tuberculosis, who, either from ignorance, indifference or wilful neglect, refuse to protect others from infection, persons who, in other words, cannot be controlled at home. The number of patients in this class is much greater than many realize.

As soon as we have the chain of County Hospitals in the State completed there must be greater authority vested in the Health Departments to restrain these refractory cases in the hospitals as a sanitary measure for the protection of the well. Unless this is done, I feel sure that it will prove to be the weak part in what appears to be a perfect scheme of prevention.

Finally, in the enforcement of this law each agency must realize that it is only one part of the machine and for successful work to be done it must work in harmony with the other agencies. There is the greatest need for "team work," which is always better than individual effort. The Health Department has the real authority to enforce the law and the Dispensary, the physician and the visiting nurse have the information upon which the Health Department acts. Each agency is to a large extent dependent on the others so that active and cordial cooperation is essential to success.

THE VISITING NURSE

BY ANNA LANTZ,

VISITING NURSE OF THE GENEVA, N. Y., PUBLIC HEALTH COMMITTEE

That the visiting nurse is an important factor in tuberculosis work to-day is partly true because of the fact that five or ten years ago she was the only factor in the care of advanced cases of tuberculosis, and stood almost alone between the tuberculosis patient and the public.

At that time she worked almost entirely upon her own initiative and was employed either by private or philanthropic organizations which provided but a very meagre salary for the nurse and had no way of securing adequate supplies. If the nurse saw the need of further supplies she had to use her personal influence with kind-hearted persons to secure them. Out of this stress of years of labor and thought has

been evolved the visiting nurse of to-day, particularly because of the social service experience that she acquired in this hard way.

The nurse of that time was any nurse holding a diploma from a hospital training school and possessed with a willingness to go wherever she was sent.

About ten years ago it dawned upon us that as nurses we were really not very valuable, permanent forces in nursing tuberculosis. But we saw that because we were nurses we gained the confidence of both the sick and the families, and so were able to educate them up to doing whatever we asked of them, provided we were able to relieve them of the necessity of the ac-

tual care of their sick. This we did not feel able to do and protect the well without other agencies and proper support in backing and securing it. If we did not we were adding to lives already burdened by the disease and that awful fear which accompanies tuberculosis, a fear so great that it made it practically impossible for us to teach the simple things which to be effective must be constantly done.

Any nurse who has tried it will tell you, what Miss Ellen La Mott has so well told us, that in her experience it is practically impossible to secure the constant supervision for the application of the precautionary measures that will protect the well in a home of the very poor where there is a case of even moderately advanced tuberculosis. It is easier to do this where a case has been removed. Hence the importance of public tuberculosis hospitals.

These conditions have never been accounted for satisfactorily. In the ultimate we have to say that, since we are dealing with human beings, plain everyday human nature is at fault. We must accept conditions and work with them as we find them.

About the same time that the nurses came to the conclusion that their work as nurses did not really amount to much unless they could more easily and in some authorized way secure what was needed in each particular case, the scientific and philanthropic people were at work under conditions that demanded a different sort of nurse than was usually employed under the old plan. It became evident that the associations must have more effective nurses, women who were not only trained in hospital training-schools but had had social service experience as well. And so were united the capable nurse and the important organization and I feel that I am not saying too much when I claim that they make each other effective.

With the greater knowledge of the prevalence and danger of tuberculosis, committees have been arranged to do and provide the necessary things, even to laws which make possible the proper and efficient care.

Now as to some of the ways in which a nurse can help in the discovery of cases. A tactful nurse's daily life in a community of itself attracts the attention of those who are suffering and she often hears all about conditions before symptoms are sufficiently developed to lead to consultation with the family physician, or even to induce the patient to go to the so-easily-consulted dispensary. The dispensary itself provides a way of discovering new cases and protecting undeveloped cases by giving the nurse the opportunity of getting into homes to which she would not otherwise have access. We also find that medical inspection of the schools, where it includes a nurse, provides an excellent way

not only for doing preventive work but in discovering even advanced cases, for it is a well-known fact that tuberculosis patients will go from one physician to another seeking one who will tell them that they have anything else but tuberculosis. It is these patients, abandoned to the care of their families, who produce the children who are usually found to be defective in those things for which the school children are medically inspected, viz.: eye-strain, malnutrition, adenoids and enlarged tonsils. In these cases, with tact and skill the nurse can secure some form of care and supervision, and possibly even secure a physician who will be very helpful in disposing of the case to the good of itself and the family.

Now it is not my purpose to speak here of the difficulties or trials that present themselves to us as nurses in our efforts to secure for the afflicted through efficient organizations the help that is necessary, nor of our efforts to secure an efficient organization when we, the nurse, are the first upon the scene. For by persistent effort and by keeping in close touch with the Anti-Tuberculosis Committee of the State Charities Aid Association we shall accomplish all that we mean when we say, "No uncared-for tuberculosis in the State of New York by 1915." By patiently striving after general healthful conditions and caring specifically through our Committees and by existing agencies for each case and situation that comes to our attention, we shall not only succeed in getting county hospitals, extra hospital beds for the care of tuberculosis, dispensaries and visiting nurses, to the limit of our need, but we shall also engage public sentiment to such an extent that we shall make the law-makers of New York willing to provide those things through the State.

So much in general for the nurse and the organization employing her in this great battle. May I in particular recount a little of the daily work the nurse does regularly and perhaps some of the unusual things that she comes across. The nurse goes into a home where there is an advanced case. The patient must be made clean and comfortable and someone instructed how to accomplish at least some of the things that will keep him so. She must find some way to take care of and dispose of the excretions, particularly the sputum. She must teach the importance of keeping mouth and hands clean, find what the patient has been eating and how well it has been nourishing him, perhaps procure such additions to his food supply as may seem necessary and wise to his physician, and make sure that the family will not use the eggs for omelets nor the milk for rice-puddings; not that either are bad but the physician may think that milk and eggs are better for the patient and in another form. Therefore it is

important to see that the family is provided with proper and sufficient food. Then both the patient and the family must be provided with proper and sufficient bedding. The nurse must find out the source of income, and if necessary find some way of increasing or adding to it. Last but not least she must provide a way of getting an abundance of fresh air to the patient without freezing out the remainder of the family, and teach the family to at least sleep in well-ventilated rooms. Our duty to the family is even greater than to the sick ones, for it is they who mingle with the world, who must live after the sick one is disposed of, and who must be taught to live so that they will be immune to this particular disease. To do this we must try to teach the family that they need have no fear if they are willing to do absolutely as they are instructed.

We must teach the well ones simple things easily remembered and easily carried out before we can expect great results. Among other things, we teach them to stand and sit erect, to breathe deeply and through the nose, to use old cloth for handkerchiefs and to burn or boil the pieces, to wash the hands and rinse the mouth always before eating, to use their own drinking cup, and to eat after no one in the sense of biting from a piece that another has bitten from. Through the organization employing us we must be in touch with the Board of Health or Health Officer to secure their co-operation in seeing that the premises are kept in a sanitary condition and that we are provided with the things necessary to keep it so, if the family are unable to pay for them. These officers are not only ready to enforce the law, if necessary, but I have always found them quite as ready to help us to secure compliance with it, not only to safe-guard against infection but to make those afflicted comfortable.

Some of the extraordinary things that I should like to mention are, for example, like the following: A family of five, including two sickly-looking children of

school age, but who were not in school when the general medical inspection took place, a delicate young man still in his teens who worked indoors, and the father ill with tuberculosis, and so acknowledged by his relatives aside from his immediate family. He was attended by a physician who reported the case to the Board of Health as one of tuberculosis, but who said that he had not mentioned what the disease was to the family because they had never asked and he did not want to frighten them. The wife of the patient had entire charge of the household and the sick man. In the morning she made up the bed of the son who worked, and placed the sick man in it, so he would have a change. The bed of the sick man was then aired so that the patient might find it fresh and nice when he and his wife, who shared it with him, retired for the night. The son's bed was then ready for him to occupy. From this well-aired couch, which, as I said, the wife shared with the patient, she arose from time to time during the night to minister to his needs. This continued to the day of his death. The children of school age in the family were obviously fertile soil for almost any germ disease, but we had no authority to interfere with what was considered the care and attention being given them by the family physician. The case came to our attention through an interested neighbor who thought it would be well if our nurse would go and stay at night to relieve the wife, but nurse under her direction. We did not feel able to do that and it would not have helped anyway, for the next day the man died.

I could enumerate other things apparently just as discouraging as this seems. We are not, however, either as nurse or organization discouraged. We feel and believe that, as we educate public opinion and continue to use existing agencies, we will bring into existence educated consciences, as well as zealous workers in securing not only compliance with the law, but eager desire to prevent just such unfortunate cases.

RELIEF

BY ETHEL VAN BENTHUYSEN,

CHAIRMAN OF THE RELIEF COMMITTEE OF THE ALBANY COMMITTEE ON THE PREVENTION OF TUBERCULOSIS

Perhaps to deal with the subject of relief it will be best for me, as representing a local relief committee, to describe the situations we had to meet in beginning our work in Albany.

Our experiences have led us to formulate a few theories which are the basis of our work at present and our problems are no

doubt typical of those encountered throughout the State. Probably all the counties which have no tuberculosis hospitals have tuberculosis patients in the hospital connected with the almshouse. They are getting the care that we might have had ourselves thirty-five years ago, but not the fresh air cure, nor sanatorium diet. Mean-

while the public mind is becoming conscious of the danger of infection from uncontrolled patients. Consumptives begin to be feared by the people about them, so that their position, without a hospital, is growing perilous.

Raybrook can of course accept only incipient cases and the other counties are waking up just as we were, so Raybrook is generally full. Those who are proper candidates for Raybrook often have to wait two months for admission, and it was literally true in Albany at first that some of the advanced cases who came to the dispensary had "not where to lay their heads."

We had two advantages to start with here in Albany. One was that when the dispensary opened, the Central Federation of Labor had a private pavilion with twelve beds at seven dollars a week. The other advantage was that the Albany Guild for the care of the sick had been nursing consumptives in their homes for many years and was prepared to enter further into the service in connection with the new lung clinic.

The relief did not start with the Relief Committee. There have been consumptives assisted by their friends ever since there has been tuberculosis. The benefit funds of unions and fraternal societies and the purses made up by working men and women to help each other would work wonders under the sanatorium system we hope soon to have. Many a sick man has been sent to the country and given all the chance available, but the best chance in the past was to board in the country or to rest from work at home, and the results were not encouraging. In this paper I put under the head of relief not alone the work of the Relief Committee, but all the help and encouragement we have seen given to patients by persons, churches and societies. I only want to tell of the different elements that enter into the relief movement in a town like Albany, and show how the Relief Committee, by keeping in close touch with the dispensary, can work in connection with all the forces and help to co-ordinate them.

The first homeless patients who came to the dispensary were put into the pavilion. Half of one man's board was paid by his employer and half by the Relief Committee. A purse was made up for another man by the employees and managers of the store in which he worked. We combined with the Spanish War Veterans to pay a veteran's board. A woman who had a few savings paid a little of her own board and we made up the rest. An orphan girl, whom we took out of the asylum, we paid for ourselves, with some assistance from her church. Once a saloonkeeper joined us in helping a bartender.

At the same time there were union men in the pavilion whose expenses were paid

by the Union and some patients who paid for themselves. Twice we combined our funds with the generous gifts of parish priests. The Council of Jewish Women paid all the expenses of Jewish patients.

The pavilion expense lasted from November, 1908, to June, 1909. By May, 1909, the County Board of Supervisors had passed a resolution that they would pay the board of patients in any public hospital which would receive them, and in June tents were ready for them at the Albany Hospital. When the expense of board was removed, the cost of our immediate work dropped from \$300 a month to \$150 for the whole summer. This includes only our own relief fund, not the money from the societies that united with us.

Paying board was not, however, our sole care. There were many patients needing help in their homes. We had to be responsible, in many cases, for rent, blankets, beds, milk and eggs, and the outfits for sitting out of doors such as canvas, chairs and quilted resting bags. We began to look upon newspapers as our best friends, because we could make our coverings really warm—warm as nothing else but fur can be, by quilting them in between cotton and flannel.

Various ladies' societies quilted these heavy things for us, not as a hard task but gladly. We did not give our supplies to the patients but loaned them so that after fumigation they could be handed on. The nurse would sometimes climb up on the porches of patients' houses and tack up canvas, making a little hospital of the home, and a number of patients thus slept out of doors. It is this last mentioned part of the work, the home care, that continues to belong to the Relief Committee now that the county takes over the boarding expense.

We are trying the same plan for relief now that we had before, getting help through the nearest channels first and supplementing it if it is not enough. The part of a Tuberculosis Relief Committee is to supply diligent personal service. One necessity is money but the service is needed most.

I would say here, however, that I believe it is easier to procure money to spend on individual cases of tuberculosis than for any other purpose whatsoever. The world's heart is warm toward the consumptive, with a pity coming from the sense that his suffering is due to causes which the community ought to avert. It is also with the thrill of a new hope that people stand ready to put each case to the test. The only danger is that individual relief cases may divert funds from established institutions which first of all need regular annual gifts.

In truth no lack of money will occur except where there is lack of faith on the part of the committee or where their knowledge

of the patient's need is not sufficient for them to present it as truly knowing that whereof they speak, or where the patient so fails to co-operate in the effort to get well that he allows the expenditure to be wasted. In all charity work there is the danger of pauperizing the poor man. In tuberculosis relief work there is the same risk, offset only by the greater danger that the poor man if let alone is having a wider chance to spread infection.

Now, although moral evils are greater than physical evils, I think it will be granted that tuberculosis is such a prolific cause of pauperism that we cannot tell how far pauperism in itself extends until we remove this scourge.

In Troy, thirty-two per cent. of the children in the Orphanage lost their parents by tuberculosis, and they were exposed to it from the cradle. In Albany forty-two per cent. of the children in our Orphanage show a predisposition to the disease. These children not only have to start life as dependents but are likely to fall down in their struggle to be self-supporting. Here is dependency caused not by the spirit of pauperism; here are human lives made ineffective simply by the direct and deadly work of the tubercle bacilli.

Unfortunately, when it comes to paupers, the same quality that makes a man a reckless spender and disqualifies him for our attention makes him a careless spitter and forbids us to take our eyes off him. And the paupers know that we are pledged to a policy of guarding tuberculosis, so we are having now and then—and I have recently heard of one in New York—cases of affected tuberculosis. It was only by appealing to the dispensary records for information that private charity was several times saved from giving to these frauds.

A pauper who is a careless consumptive should of necessity automatically be followed up as a public nuisance by the Board of Health, but I do not think he should lose the services of the Relief Committee alto-

gether. The plans laid out for him may seem to his irresponsible soul less irksome if we talk to him and use our earnest persuasion. We may then keep him from successfully evading the law.

Then, too, the little children of the careful and the careless consumptives alike have the same strong claim upon us. I mention the paupers first because it is they who clog the wheels of charity. Every man, woman and child is a philanthropist up to the point where the first ingratitude is met. The audience here present represents those who have lasted out. We must not be discouraged now.

It has happened with us several times that the only way a parent could go to a hospital was by putting the children in an orphan asylum. If, however, the mother is well able to take care of the children I think it is fully agreed that the church, the employer, the friends, the fraternal society and all who can help, should be visited, and among these a pension can be got together. Those who would help the patient can help his family instead. If they cannot meet the whole expense, the Relief Committee should stand ready to help.

It is necessary that the funds raised for a patient should be directed to the carrying out of one definite plan for him. Suppose the Relief Committee agrees to pay the rent on condition that the patient goes at once to a hospital, and in the meantime the church pays it without such a condition, and the employer, thinking to help, makes the man's work easier, though not easy enough. That man is strongly tempted to linger at home. If the fraternal society to which he belongs at this juncture tries to get him a job in the country, he is at his wits end to know which offer to take, and all the time he is an easy cure if he will only lie still in the hospital. Thus it is needful if only for unity of purpose that the Relief Committee should consult with all the people who can combine to get a fund together.

INSTITUTIONAL CARE OF TUBERCULOSIS

BY HERBERT MAXON KING, M D.,

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The establishment of the Sanatorium was the first important step in the organized fight against tuberculosis. It is very doubtful, however, if, at the start, the pioneers of the Sanatorium movement saw in this institution anything more than a means for combating the disease as already an accomplished fact in the individual.

In other words, the possibilities of the Sanatorium as an agent in the prevention of

tuberculosis were but vaguely, if at all, recognized. The disease was widely prevalent. The hopeless inadequacy of ordinary methods of treatment was apparent, while the results of climate-therapy, as studied in the light of recent and more exact knowledge, were for many reasons unsatisfactory and disappointing. With the discovery of the specific cause of the disease and the resulting general recognition of its communicability, at first the

wards and later the private rooms of general hospitals were closed to the consumptive.

The crying need which thus became manifest was met in part by the establishment of special institutions—homes for incurables and the like—and then later as Brehmer, Trudeau and a very few others succeeded in demonstrating the curability of consumption in certain of its phases, and especially in its earlier stages, the Sanatorium took root, so to speak, and grew in popularity. Gradually it became recognized that in the Sanatorium the consumptive was offered the best and surest available means for the restoration of health. Not only was he given the most ideal environment and the most favorable conditions for exhibiting and individually applying those principles embraced in the term "open air cure," but it immediately became evident that the place, par excellence, for the employment of any form of specific treatment in tuberculosis was the Sanatorium.

This was the feeling, almost without exception, among medical men while yet organized effort dealt with the problem of cure and before that effort was directed to the more stupendous task of prevention in tuberculosis.

It is now about twenty-five years since Dr. Trudeau established the first Sanatorium for the treatment of tuberculosis in America. It is interesting to consider for a moment what Sanatorium experience has taught us during these twenty-five years. In the first place, we have learned, and chiefly through Sanatorium experience, that in its early stages pulmonary tuberculosis, in the majority of cases, is a curable disease. This does not by any means, however, imply that all such cases are curable. Experience teaches that from the start, and despite every effort, a certain proportion of infected individuals will succumb. But given a sufficient potential resistance, which fortunately most of us possess, we have learned that proper care and environment, combined with suitable treatment, patiently and persistently carried out, will effect a cure of the disease and a relative immunity to reinfection.

In the second place, Sanatorium experience has taught us what is even more gratifying—at least from a humanitarian viewpoint—that advanced cases of the disease in numberless instances are susceptible to such complete and permanent "arrest" that not only the lives of such individuals may be indefinitely prolonged, but in no inconsiderable measure their economic value to the community may be restored. To one who recalls the old hopeless attitude with which, until a few years ago, the consumptive with an advanced lesion was regarded, the possibilities which the Sanatorium of to-day offers to just such cases seem the most conspicuous and satisfactory among all of its achievements. It is gratifying to be able to bring about a "cure" in an incipient case—gratifying to the scientific spirit of the physician at least, for as a matter

of fact the patient seldom fully realizes his danger. But it is a matter of even greater satisfaction to bring about a complete "arrest"—an "economic cure," so to speak,—in a case which is brought to us with an advanced and extensive process, and a marked constitutional disturbance. Prompt and efficient treatment is imperative, and essential to success, quite as much in the one as in the other case, but as the change wrought by successful treatment is more spectacular, so is the satisfaction greater in the successful management of the advanced consumptive, and it is almost wholly through the work and experience of the Sanatorium that this note of optimism has entered into our conception of prognosis in these advanced cases.

The third lesson which we have learned from Sanatorium experience is no less valuable and important, and it is well to emphasize this point, that with the exercise of suitable precaution on the part of both, the well may live with the sick without the least danger of infection. In no well-conducted Sanatorium in this country is there an authentic instance of the infection of a healthy employee, which can be traced to contact with the sick of the institution, notwithstanding the necessarily intimate relationship which frequently exists between the two.

In the fourth place Sanatorium experience has taught us that the value of institutional care and treatment of the consumptive has a far-reaching educational influence beyond its merely curative value, an influence which, I venture to say, is more effective and hence more important than any other factor in this whole campaign of prevention.

I realize quite clearly that with regard to this opinion there are many and especially among those whose work lies in other fields and has to do with other phases of the question, who will differ with me. One will point to the Tuberculosis Clinic, another to the leaflet propaganda, another to the day camp, and still another to the invaluable labors of the visiting nurses and social workers, and so on throughout the whole splendidly organized system, each unit of which is working with laudable enthusiasm and, no doubt, no small measure of success. But my opinion with respect to the far-reaching influence of the Sanatorium education and its paramount importance in this campaign is based first upon a belief that one individual, thoroughly taught and drilled through weeks and months of unremitting instruction in the school of experience, becomes a more effective influence and commands a wider clientele, so to speak, than a hundred half instructed and comparatively inexperienced patients, who receive their instruction, as it were, didactically. And, after all, it is to the patient that we must ultimately look for the really effective work in this campaign.

But my opinion in this respect is further based upon observations of the conditions which follow the return home of a Sanatorium

patient in the community in which he lives. Compare such conditions, for instance, with those which result from a leaflet propaganda, or a visiting nurses' campaign in corresponding quarters, and you will see what I mean, and be forced to draw like conclusions.

But the most important lesson, which the Sanatorium has taught us, is that its chief mission and greatest value is curative. That it has an important place in the campaign of prevention, both as an educational factor and to a less extent as a means of segregation, is undeniable. But whatever value the final analysis may give to the Sanatorium in the work of prevention, its incomparably superior advantages in the treatment of tuberculosis as a developed disease must constitute its strongest claim to support and to this phase of its work must be ascribed its chief mission in the anti-tuberculosis crusade.

Consumptives in almost all stages of the disease and under almost any form of treatment, or with no treatment at all, and in almost any environment, occasionally recover and many times secure a more or less permanent "arrest" of the disease, often quite ignorant of the existence of the disease at all; but this in no way invalidates the claims of the Sanatorium any more than it is a sufficient argument against any measure looking to the care and treatment of the consumptive, or to the prevention of the disease. Neither physician nor patient will knowingly leave to a hazardous chance what can be brought within the range of relative certainty.

During the last few years there has appeared in certain quarters a disposition to depreciate the practical value of Sanatorium treatment of tuberculosis and to bring into comparison, to the prejudice of the Sanatorium, the results of "home treatment." There are two very good reasons, however, why such comparisons lack the force of argument which they are intended to make. In the first place, since it is to ultimate results that we must look to judge of the efficacy of any method of treatment, and since we have no adequate statistics bearing upon the subsequent histories of tuberculous invalids treated in their homes, it is obvious that no comparison of methods, beyond those based upon mere opinions, can be made. Everyone who has had any considerable experience in this work is familiar with the comparative unreliability of apparent results obtained during treatment. It is to the subsequent histories of these patients that we must look for the real test of its efficiency, and until a sufficient amount of statistical data shall be accumulated bearing upon this question of after histories of patients treated at their homes, it is not possible to draw any just comparisons.

In the second place, among the few who have written disparagingly of the efficiency of Sanatorium treatment, I am not aware of a single one who has been competent to express an opinion at all. They have in no case been Sanatorium workers and they have had no

experience in the actual working out of Sanatorium methods. So far as I am aware, their opinions have been based entirely upon an acquaintance with a few isolated instances, and the reading of Sanatorium reports, and it is well to remember that no printed report of any institution can give anything like an adequate conception of the work which is actually accomplished within its precincts. One thing is certain—among those of us who have had many years' experience with tuberculous invalids, both in private and in institutional practice, there is absolutely no difference of opinion as to the relative merits of the two methods.

Nevertheless, although we can in no wise acknowledge the competency of such criticisms as have been made against the Sanatorium it is desirable to discuss very briefly the more important of these, especially just at this time when the question of County and Municipal institutions is being raised throughout the country, and more particularly in New York State. It will be possible on this occasion to discuss but the two most important of these criticisms which, for convenience, may be formulated in the following two propositions:

(a) The Sanatorium is a minor and comparatively unimportant factor in the prevention of tuberculosis.

(b) The expense of Sanatorium treatment places the method beyond the reach of the mass of consumptives.

The present occasion permits only the briefest discussion of these criticisms and almost wholly precludes reference to available statistics and accumulated data bearing upon the whole question of institutional care of the consumptive. There is at present available, however, much valuable literature touching almost every phase of the subject, with which all who are interested in the establishment of hospitals and sanatoria should become familiar before proceeding to the expenditure of large sums of money for this purpose, if the mistakes of the past are to be avoided, and the highest efficiency of the institution is to be realized.

It has been argued that "the Sanatorium is a minor and comparatively unimportant factor in the prevention of tuberculosis." If this proposition were worded somewhat differently—for instance, "the Sanatorium *has been* a minor factor in the reduction of the *phthisis death-rate*,"—I think I should be willing to agree to it. All of you are familiar with the remarkable fall in the death-rate from all forms of tuberculosis, but particularly from phthisis, during the past fifty years. You know also that the death-rate from all causes has fallen, but that the reduction in phthisis mortality is out of all proportion greater than that from all other causes.

Moreover, this experience is general throughout the world, wherever vital statistics are at all reliably recorded, with the somewhat

remarkable exceptions of Ireland, Norway and possibly France.

But when it comes to ascribing a definite cause or set of causes for this great reduction in phthisis mortality, approximating, as it does, in the cases of England, Wales and the United States, fifty per cent, we are confronted by problems of such complexity that their solution is well nigh impossible. The fact is, as you know, that by far the greater part of the reduction occurred before there had taken place any concerted movement for the suppression of tuberculosis, and could not, therefore, by any stretch of imagination, be ascribed to conscious human effort.

With here and there a transitory exception, the phthisis death-rate has steadily declined since 1850, each decennium making a substantial drop. But strange as it may at first appear, in the last ten years during which this whole splendid anti-tuberculosis organization has come into existence and flourished, the reduction in phthisis mortality has been less marked than for any previous decennium since 1860. To this general statement, however, there are a few interesting and instructive exceptions, such, for example, as Massachusetts, where the reduction is greatest in the decennium ending in 1900, and almost equally great in the six years following. And it is particularly worth noting that during just this period Massachusetts has surpassed all other States in the Union, as well as Great Britain, in providing Sanatorium care and treatment for the consumptive.

On the whole, however, I am willing to admit that the work of the Sanatorium has been, up to the present, a minor factor in the reduction of the phthisis death-rate, and I ascribe as a reason for this the insufficiency of Sanatorium provision, certainly *not* the inadequacy of the Sanatorium method. After all, in looking for a sufficient cause or group of causes, for the great reduction in mortality from tuberculosis during the past half century, one is forced, however reluctantly, to the conclusion that human agency has had very little to do with it, and that in all probability the one predominant factor has been natural selection. There has been no change in the character of the virus; its virulence responds to the same tests in the same manner to-day, so far as we may determine, as in 1882, when Koch first identified it. On the other hand the clinical history and pathological changes wrought by tuberculosis are identical with those described by the earliest writers.

In other words, phthisis is to-day what it has been since the time of Hippocrates. Nevertheless, the last half century has witnessed a fall in the death-rate from this disease of approximately fifty per cent, and it seems to me that we can scarcely evade the conclusion that this has come about chiefly through the partial elimination of the more susceptible strains at the cost of the individual and of the family. It is even probable that, left en-

tirely alone, the death-rate from tuberculosis would continue to decline until in the course of time it is conceivable that a fatal tuberculosis would be indeed a medical curiosity.

On the whole, I am willing to concede that up to the present we cannot claim for the Sanatorium a dominant part in the reduction of the death-rate or the prevention of the disease, but at the same time I am forced to include, in the same category with the Sanatorium, all other phases of the anti-tuberculosis crusade. In short, until now we have had very little to do, voluntarily, with this prodigious and fortunate change in the phthisis mortality. But while an honest inquiry into the facts of the case seems to force upon us this rather pessimistic conclusion with regard to the past, the outlook for the future is much more hopeful and inspiring. During the past eight or nine years there has grown up a powerful organization with energy, enthusiasm, money and determination, and, what is more important, with an accumulation of experience which cannot fail to make its future operations effective. The work of this organization has only begun. The death-rate in tuberculosis, notwithstanding its great reduction, is still the most appalling item in our mortality returns, and we believe that by patient well directed effort it can be brought down to an insignificant minimum ages before this could possibly be accomplished by unaided nature and without the stupendous sacrifice of life and health which nature would exact.

Now the one factor which seems to bear the most constant relationship both to the mortality and to the morbidity of phthisis is segregation. It is not possible to estimate how great an influence in reducing the incidence of tuberculosis *complete* segregation might become, for, of course, it has never been and, for obvious reasons, can probably never be, complete; but wherever segregation has been most fully practiced, there tuberculosis has been best controlled. This applies chiefly, so far as available statistics can inform us, among pauper communities, which I confess must vitiate any general conclusions in no small degree.

Nevertheless, in this matter we are justified, I think, in reasoning by analogy from historical experience in dealing with other great endemic diseases, such, for instance, as leprosy, where also there can be no doubt natural selection was the dominant force and human effort was a strong secondary factor in bringing about a practical extermination of the scourge.

As I have said, complete segregation is doubtless beyond possible achievement. This would mean the isolation of every case of the disease from its incipency, until cure or death ensued. We know that such a course would be utterly impossible and, moreover, we believe that such a course is unnecessary and that the results which we look for can be attained through a milder and more economic

procedure. Let us suppose there to be sufficient Sanatorium provision for one-third of all cases of phthisis with bacillary sputa—let us further suppose that every case immediately upon its discovery, and at as early a stage as possible, be given the advantages of prompt Sanatorium instruction and treatment, the older patients (in time of Sanatorium residence) being discharged as became necessary to admit the newer ones.

Taking three years as the average duration of a "bacillary case" (an open case), we may then estimate that every consumptive would have the benefit of a year's care, treatment and education. A vast number would be cured who now die or become chronic invalids. One-third of the foci of infection would be constantly removed from the community and the danger from the other two-thirds would be reduced to a minimum. Is it not fair to assume that with such a course the incidence of phthisis would be prodigiously lessened and that the death-rate would fall to a comparatively insignificant figure, and that this result we might expect, without undue optimism, in the course of a single decade.

One of the most insistent demands of the prevention propagandists of the past few years has been for hospitals for advanced cases, the idea being that this class of consumptives is the most dangerous to the community as a source of infection. That this class is the most helpless and makes the strongest appeal to our sympathies, and that as a rule it makes the most urgent demands upon charity, I do not question. The claims of this group of hopeless invalids upon human charity are incontestable. Whatever else may be neglected in this anti-tuberculosis campaign, this call must be answered or we forfeit all claim to humanitarian sentiment.

But let us not make the blunder of assuming that by providing asylums for this hopeless and forlorn class of sufferers we are thereby removing from the community, the whole or even the chief source of danger. That such an assumption is an error I am convinced. We know to-day that the chief source, we might almost say practically the only source, of infection in human tuberculosis is the phthisical patient with bacillary sputa. A patient in the last stages of consumption is supposed to produce a much larger quantity of sputum containing an enormous excess of bacilli as compared with the ambulant case. The former is, moreover, of necessity, confined within narrow limits as to space, and consequently within such limits there must be a very much higher concentration of virus, and a correspondingly higher degree of infectivity. In some measure this is true, although the difference between the virus producing capacity in the two cases is much less than is generally supposed.

In the course of some recent observations made at Loomis Sanatorium it was found that in a group of twenty-five far advanced, bed-ridden cases the average amount of sputum

per patient per day was 65 grammes, with a bacillary content which may be represented by the fraction $21/25$ (the denominator representing a theoretical maximum of this group). At the same time it was found that in a group of twenty-five ambulant cases, in good general health and appearance—such patients indeed as would pass in an ordinary community unrecognized as consumptives—the average amount of sputum per patient per day was 42 grammes, with a bacillary content of $16/25$, estimated in like manner as in the former case. It will be seen, therefore, that the difference in this respect is much less than one would naturally suppose.

Now in the case of the last stage consumptive the zone of danger is necessarily brought within very narrow limits, although there is, of course, a higher concentration of the virus within these limits. I am assuming that we are dealing with careless patients and uninstructed attendants. But the ambulant consumptive, with his forty-two grammes of bacillary sputa, has a wide range of activity; he is not only on the streets and in the shops, but in places of amusement, churches and social gatherings, and enjoys such intimacy of contact with his fellows of both sexes as is limited only by his inclinations and his conscience.

For my part, it has always seemed to me, therefore, that, of the two, the ambulant case, with a bacillary sputum, is a far more prolific source of infection than is the last stage, bed-ridden patient, and when from the point of view of prevention it is argued that institutional provision for last stage cases is all-sufficient, I confess I cannot agree. Institutional care and instruction must be provided for the early cases as well; indeed from this point of view of prevention sanatoria for early stage, or to put it differently, hopeful, cases are to my mind the more important and desirable of the two.

Let us now briefly consider the other most common criticism of the Sanatorium method, viz.: The expense of Sanatorium treatment places the method beyond the reach of the mass of consumptives. I quite agree that if this expense must be borne by the patient himself, the criticism is well founded. By far the larger proportion of these patients are not themselves, nor are their families, prepared to undertake such financial responsibility. Often it is the wage-earner of the family who is stricken and there is not only the question of his own care and treatment to be considered, but the support of his dependents in the meantime as well. Private philanthropy cannot undertake the task, and fraternal organizations and sick benefit associations alike fail to fully meet the requirements, although, as you know, much has been and more will be accomplished by these very means.

After all, it is to the State that we must look to make this work complete and effective. The State recognizes this and is responding

to the call everywhere throughout the civilized world. Large sums have already been spent and still larger appropriations are available, but there is a feeling, and perhaps justly, that mistakes have been made in the past both in the distribution and the individual application of the funds, which have been given to this purpose of Sanatorium provision for the consumptive and there is a very natural tendency at present to look a little more critically into the economic features of the question, particularly as regards the items of construction and maintenance.

In the matter of construction there are two schools, so to speak, one advocating substantial, permanent and correspondingly expensive buildings and elaborate equipment, the other favoring simpler, temporary and inexpensive structures and equipment. For my own part, I am of the latter school and believe that the simpler and cheaper construction and equipment make for smaller administrative expense and consequently enable us to extend the benefits of the Sanatorium to a greater number of patients at a smaller cost to the State.

One of the most successful Sanatoria in the world—successful in the best sense of the term—grew up in an abandoned glass factory in Black Forest, and such new buildings as were added were of very simple, almost primitive, construction and furnishing.

It must be borne in mind, and in numerous instances I fear this point has been overlooked, that the building and the equipment do not make the Sanatorium. It is the men and women who do the work, which determines the degree of success that any institution of this character shall achieve. The right physician, with a corps of competent assistants, requires certain material essentials, beyond which all elaboration of buildings or equipment must be regarded as superfluous ornament, for the luxury of which some one has to pay, not only for increased original cost, but, what is more important, for no inconsiderable increase in expense of maintenance.

Give a good culinary equipment, plenty of pure water, and good beds, and the right sort of a medical staff can accomplish as much for the tuberculous invalid in old sheds and rough "lean-tos" as can be done at all. Every Sanatorium should be equipped with sufficient infirmary or hospital provision, and this, of course, adds both to the per capita cost of construction and subsequent maintenance. Experience teaches that provision of this sort should be made for approximately twenty per cent. of the total number of beds in the institution in order adequately to meet the requirements.

It has been estimated, and my own experience confirms the opinion, that a unit of fifty beds is the most satisfactory from the standpoint of economy of maintenance, although the first cost, which includes construc-

tion and equipment, is necessarily higher with so small a unit.

What, then, can be considered a safe, minimum cost at which can be built a Sanatorium intended for County or Municipal purposes, and to reach a class of consumptives who are partially or wholly dependent financially? Let us itemize the cost as follows:

UNIT FOR FIFTY PATIENTS

Administration building and infirmary, complete and furnished.	\$20,000 00
Detached kitchen, dining-room and equipment.	6,000 00
Sleeping quarters, dressing and bath rooms, complete and furnished.	7,000 00
Ground and out buildings.	5,000 00
Total.	<u>\$38,000 00</u>
Cost per bed.	<u>\$760 00</u>

For obvious reasons the cost of the site is not included in the estimate. The per capita first cost of a unit of 100 beds could easily be brought down to \$500.00. The cost of subsequent maintenance, however, in such a unit is slightly higher than is the case in a unit of fifty beds, a fact which is rather difficult of explanation.

The cost of maintenance in an institution of this character is of necessity a matter which varies in accordance with (a) the physical condition of the patients treated; (b) the section of the country in which the institution is operated, and (c) the social condition and previous dietetic habits of the patients treated.

I am assuming that the same skill and economy of administration is available in all cases.

I should say then, judging from the experience of myself and others, that a reasonable estimate of the cost of maintenance in such a unit as I have described would be \$1.00 per patient per day, estimated on the present price of essential commodities.

At the annex of the Loomis Sanatorium, which is the charitable division of the institution, this cost has been brought as low as a fraction under \$6.00 per patient per week, and this unit of the Sanatorium has a capacity of forty patients, which is, you will note, somewhat under the theoretical number of greatest economy. During the last fiscal year the cost of maintenance in this unit of the Sanatorium was \$6.18 per patient per week, while during the next previous year it was \$6.45, and in none of the past seven years did it reach \$7.00. I think, therefore, I am safe in estimating that the cost of maintenance in such an institution need not exceed \$1.00 per patient per diem, on a basis of fifty patients. However, if the number of bed patients in the institution were to exceed twenty

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ADVANTAGES OF LOCAL CARE AND TREATMENT

BY ALBERT H. GARVIN, M. D.,

SUPERINTENDENT STATE HOSPITAL FOR INCIPIENT TUBERCULOSIS, RAY BROOK, N. Y.

The action of the existing general hospitals in the past has been one of exclusion: "We don't want the consumptive—the more ill he is the less we want him. We do not consider it wise to treat the advanced consumptive in a bed that is next to a case of lobar pneumonia; in fact we don't want the consumptive in the same ward."

If by chance some hospitals set aside a ward for his reception, it was usually an unattractive spot, distant from the center of interest in the hospital, little visited and generally shunned. This fear, which is not entirely unreasoning, has to the present day effectively excluded the sick consumptive—he has had no place to go.

The situation is now being appreciated. It is really best to have special places to treat and to isolate patients who have tuberculosis. It is fortunate that there are no old places to pull down and that all that we have to do is to build up in the best and most attractive and most careful way. It is very pathetic when a patient presents himself suffering from a little tuberculosis, from which he might recover if he just had the chance, and he can't get that chance. It is very pathetic when the case has progressed in its course and the patient reaches an advanced stage, moves from house to house, to poorer and poorer quarters, and is finally excluded everywhere, to die in poverty or in the poorhouse.

A most intimate way of presenting for discussion the advantages of local care and treatment of tuberculosis, either for the cure of the early case or for the isolation and nursing of the advanced patient, or for the supervision of the typical chronic, is by a description of patient histories, with an illustration of the patient's view point of what is presented for him and his attitude towards such machinery as is now supplied for his needs. The solution of the problem, as a whole, is simply the solution of each individual unit problem that every patient presents. In some of the patient histories it is

very evident that in providing for the care of his case the least factor to consider is his tuberculosis. He is ill not so much as the result of infection, though this is the immediate cause of his disability, as he is ill through indiscretions that he is responsible for and that predisposed him to the disease. In other instances it is equally evident that the patient was overwhelmed with an environment, a place of living, a place of work, or a family responsibility that made it impossible for him to solve his difficulties unassisted. He was simply overwhelmed by the stress of living. Further, there are those unfortunate patients, persons in whom there is neither any element of personal fault that interferes with the case as such, or any environmental defect that can be criticised. These are the progressive cases, who apparently have no resistance against the in-roads of the infection, and progress rapidly in spite of any assistance that can be given.

We have a patient whose habits and attitude towards the simple rules of hygiene prepare him as a victim for the infection.

We have a patient who is unable to cope with a great stress that is placed upon him, and added to this, bad hygiene, unsatisfactory work or no work and perhaps a closet to sleep in.

We have a patient whose living accommodations, whose personal hygiene, general environment and resources do not save him from a rapidly invading tuberculosis.

The patient who assumes an unreasonable attitude to his limited physical state of health, or who refuses to accept reasonable accommodations for his protection and for the protection of others that he might infect, or who for the lack of self-control or the refusal to accept restrictions after treatment which has resulted in the arrest of his lung inflammation, does not present alone a medical problem. His case is as much disciplinary and corrective and interests the sociologist as much as it does the physician. Likewise the patient who is overwhelmed with an

environment or a responsibility or a place of work or a place of living that he cannot change and who feels that he must sacrifice himself because there is no other way to solve his difficulty presents the side of a problem that is as much sociological as medical.

Most of the cases of tuberculosis present these two phases because tuberculosis occurs, unfortunately, at the time of life when most people have assumed their life responsibilities. The progressive case in whom there is neither a personal fault nor a fault in the environment that can be discovered, who becomes accidentally overwhelmingly infected, or manifests rapid progression of the disease, from what appears to have been a slight exposure or a slight infection, represents a loss of life that is due only to infection by the bacillus, and a loss which need not have occurred if it is really possible to cause this germ disease to disappear. We know that we can alter this situation according to our knowledge of the disease and its nature, and we can correspondingly promise a hopeful outlook provided we can obtain the patient in the early stages of his infection. Remove any personal bias that objects to the acceptance of the necessary discipline called the simple life and remove responsibilities that the patient is unable to cope with and he will usually get well.

The patient who is suffering from early tuberculosis is not a sick person in the ordinary sense of the word. He will not himself usually complain of a slight incapacity that a little tuberculosis places upon him. He will not be particularly weak. He will not be particularly thin and he will have few or none of the other symptoms that will attract the attention of his friends. The discovery of this patient means the kind of practice that heretofore has not extensively prevailed—an aggressive search among the persons exposed to a known infectious case by a physician, either in the family, at the place of living or at the place of work. This is a type of medical activity that sends most of the incipient patients to Ray Brook. It is practiced in the cities of New York, Albany, Troy and Buffalo, and a few other cities. Effective beginnings have been made, the results of which are appreciated in Syracuse, Utica and Yonkers. In these places it is a regular practice in the organized fight against tuberculosis in an aggressive way to hunt out the nests of infection; to examine the tuberculous suspects where inmates have been for a time exposed to an infectious case. There is no more important reason than this for the establishment of a dispensary or relief station, call it what you may, since it means discovering the early and concealed cases of tuberculosis. Such work is most easily done with the entering wedge that an advanced case gives. The nests of infection are most easily searched out by following these advanced cases to places of living, and examination of the

exposed persons follows as a matter of course.

Due credit must be given to the energetic field workers who are now doing this work. They have the most difficult and the most diplomatic situations to handle. They are presented at first hand with the most perplexing problems in family finance and social relations and have to overcome, when isolation is necessary and there is a place to isolate, the emotional objections of the family, and have to encourage, in other instances, the necessity of a prolonged vacation, to obviate the misfortune at some future time of isolating another potentially advanced case. The most effective weapon is the picture of the end. Nobody wants to be an advanced case, and an appeal, to prevent this either by treatment in time, or isolation to prevent further infection, when treatment is of no avail, is usually effective. These field workers are the real people who are to solve the problem of tuberculosis. If their patients sleep in closets they are handicapped. If their place of industry is a pest hole their task is doubly difficult. There is a great need of adequate machinery to discover patients, to isolate the advanced and ill, to give an opportunity to the early cases to get well.

Credit must be given to Dr. Kaiserling of Berlin, who has charge of a system of clinics, for inaugurating and reporting the results of such aggressive practice, and it was his administration of a prompt and more direct way of thus locating a large number of concealed cases that caused this work to be so extensively taken up in the organized clinics of England and this country. The early case can recover in the majority of instances if he has an opportunity, and any comprehensive scheme for local care must furnish a place with adequate supervision and attention where this can be accomplished after he is discovered. The patient who is suffering from more advanced disease presents another side of the problem, and to throw a side light on their present mode of handling, I shall present two cases that illustrate to some extent, the present situation.

The first case is unattractive and is a patient who is a periodical progressive case. His history before he became ill is suggestive of a personal side and the business side that indicates his own improvidence and lack of elemental business ability, and with disregard for the future. He was a painter by occupation, had an income of from \$800 to \$1,000 a year, continuous employment for three years previous to his illness, and his total income for these three years was approximately \$2,700. His legitimate expenses, estimated highly by himself for his three years maintenance and recreation, was \$1,500. The day he needed his surplus he had \$50. After nine months of treatment at the sanitarium he worked in excellent health for two years and collected a surplus of \$600. The money was too much for him and after the assistance

that this cash gave him he acquired a brisk relapse. Through serious imprudences, he brought himself again to a state of complete bankruptcy, both from a monetary and health standpoint. During his producing period he had absolutely no responsibility except his own maintenance, and during his period of surplus cash he had no other thought than his own enjoyment. His story is not an unusual one. When he became an advanced progressive case, entirely without funds and entirely without friends, there was no resource for him except the County Poor House. Owing to the fact that his income had given him the enjoyment of a lot of good things of life, in addition to the humiliation attached more particularly to the name of the only place that was offered him for relief, it required an excessive amount of coaxing and advice before he would accept what he considered as bad, or worse, than death. He wrote in a letter concerning the present state of things:

DEAR DOCTOR: I thought I would write you a few lines letting you know that I am getting along better than the first month I was here. My stomach don't trouble me so much as it did. They fed me pretty well here for a while and when they started to give me that \$1.25 board, me and Mr. — had it out. I get plenty of milk to drink, which is the best part of the whole thing. I am not much fatter than a good sized fish pole, but I feel all right just the same. I stay in bed all the time.

I remain as ever,

Yours truly,

This patient represents a man who is poor by accident. Given health he enjoys a fairly large income; lives it up entirely; assumes no responsibility beyond his own personal needs. To find fault with him for his failure to care for his surplus more frugally might be proper, but would accomplish no purpose. He is the usual carefree soul that lives in the present. When calamity comes he is an acute pauper. The medical features of his case are typical of the person who requires isolation and he has accepted the only present available place of isolation, the County Poor House, and he went there a rebel. He is a rebel because there no hope is offered; no attention is paid, and no interest taken. He should have been isolated months before, but the personal objection of the patient could not be overcome.

At first sight there is nothing attractive about this man as a case. One has to know him to appreciate him. He has a large number of personal faults that are catalogued as objectionable and tuberculosis along with the faults. He is not dying so much of tuberculosis as he is dying of an unreasonable disposition that is complicated with tuberculosis. By nature he cannot be moderate about any occupation. When he works he works hard; when he plays he plays hard; when he dis-

sipates he dissipates sufficiently. He is a prodigal. His one virtue I have not told: He spent a part of the \$600 saving the life of his brother, who also suffered from tuberculosis, and he was afterwards turned out on the street by this same brother. Prodigals are not infrequent and receive a varying consideration from their friends; anything is considered good enough for them—at least at first.

The next case presents a much more attractive personal side. It is a letter from a clergyman in a small town in the central part of the state, who has interested himself in a pathetic case of tuberculosis. He writes as follows:

DEAR DOCTOR: There is a patient here suffering from tuberculosis that some of us are trying to assist. She is a woman thirty-five years old and has a family of three small children. Her husband died of tuberculosis five years ago, and during his long illness he attempted to manage a small business that he had. He left a little surplus only at his death. This is now entirely gone. The patient has rather suspected the truth for some time past but has not consulted a physician until recently. The doctor is of the opinion that she has been ill at least a year. There is no place here to which we can send her, although we want to give her a chance to get well and to save the children. Can you help us?

Yours very sincerely,

This patient was later rejected for treatment on account of advanced disease, and presents one of the most pathetic instances of the inadequate assistance now offered.

When you build a hospital for the care of such people, build it with a large consideration for its attractiveness. The better it is the wider will be its field of usefulness. If it is well planned and well built it will in the future enter many fields of usefulness that it may now appear not to touch. The consumptive who discovers himself voluntarily is usually much poorer in purse than he likes to admit. He is handicapped at the period of his full earning power, his surplus is small and he is chagrined at his failure. He is very sensitive and assistance that is given him must be arranged most diplomatically. The better and more attractive the hospital the less difficulty will there be in encouraging patients to accept the help offered. If the patient is driven as a last resort, the hospital will have a very narrow usefulness.

The County Hospital scheme in this state has received the widest and most favorable attention of any of the plans for the control of tuberculosis outside of New York City, and in several counties arrangements have progressed so far that the question is now one of detail—the field that shall be covered—the care of the early case—the isolation of the advanced case, or both perhaps, not entirely forgetting the children.

MEDICAL SCHOOL INSPECTION WITH RESPECT TO THE PREVENTION OF TUBERCULOSIS

BY GEORGE W. GOLER, M. D.,

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Seventy per cent. of all children enter school as physical incompetents. This statement applies not only to the children of the lower classes: it includes the children of all the people. They are physical incompetents, not because they are born weaklings, but they have become physically incompetent because their parents were not trained to care for children.

When the child comes into the world it takes into its digestive tract a diverse flora of germs—good, bad and indifferent. If breast fed, it gets this germ flora from its dirty environment. If bottle fed, it adds the bacterial flora of the barnyard and the cow stable to the collection of germs in its digestive tract, and in the disturbances which they set up there a varied number of infections result which we have labeled gastro intestinal diseases or summer diarrhoeas. If the child survive the diseases of the first year of life, it is said to get well; but it doesn't do anything of the kind. True, it lives; that is, all live but the thirty per cent. who die, and it lives with its digestive tract and excretory apparatus injured to such an extent that proof may be adduced that its whole body has been more or less permanently damaged. Now the child is ready for a new crop of diseases: measles, mumps, whooping cough, diphtheria, scarlet fever, and a host of other unnamed infections, and one or more of these the child suffers from, and bears thereafter many unseen, minute, ineffaceable scars deep within the organs of its body. Some of these diseases may have been mild, and perhaps not have attracted sufficient attention to warrant calling the family physician (the man whom we do not call because the baby is not sick enough), but that mild attack of measles has perhaps caused a perforation of one ear drum and has permanently damaged the other; that slight attack of scarlet fever—why the boy was hardly sick at all—caused some vegetations to grow on the heart valve and seriously affected the kidneys; that attack of diphtheria produced a paralysis of the throat and a serious affection of the eyes; and the whooping cough, by interfering with the orderly growth of the child's body, left its mark in deep cavities in the six-year-old molars; and every other disease that affects the child did some permanent damage to the body structures and caused the great lymphatic gland system, of

which the tonsils and adenoids are a part, to become unduly enlarged in an effort to carry away the surplus of wastes that are made as a result of the irritants of infectious diseases within the body.

The child, then, with the marks of one or more of the infectious diseases stamped upon the organs of its body, comes to the public school, and one medical school inspector and one school nurse are expected to oversee and direct the preventive work for two or three or more thousand already damaged little bodies and advise the proper means for their restoration to health, or get their parents to permit attempts to restore them to health.

In the bodies of these children there is at least one more infection that stands out prominently in the category of childhood's diseases. In this seed bed well prepared by the infections of early childhood, tuberculosis, acquired either through contact with other cases of tuberculosis or through the drinking of dirty, tuberculous milk, develops rapidly and produces an early and bountiful crop of tuberculosis of brain, bowels or glands, and later a rich harvest of disease of the bones or lungs.

Thus the child enters school and presents to the medical school inspector and the nurse those departures from the normal which nearly every school child possesses, viz., diminished stature and weight for age, the underlying reason for which is to be found in infantile gastro intestinal disease, infectious fevers and their complications, outwardly indicated by visual aberrations, reduced hearing, anomalies of taste, smell and sensation, glandular enlargements in the neck, enlarged tonsils, adenoids, nasal obstruction and tooth decay.

The effect of infantile diseases on the physical development of the child was long since pointed out. In 1883 Francis Galton in his "Inquiries into Human Faculty," said: "It appears that the constitution of youth is not so elastic as we are apt to think, but that an attack, say, of scarlet fever, leaves a permanent mark, easily to be measured. This recalls an impression made strongly on my mind several years ago by the sight of some curves drawn by a mathematical friend. He took monthly measurements of the circumference of his children's heads during the first few years of their lives, and he laid down the successive measurements on the

successive lines of a piece of ruled paper, by taking the edge of the ruled paper as a base. He then joined the free ends of the lines, and so obtained a curve of growth. These curves had, on the whole, that regularity of sweep that might have been expected, but each of them showed occasional halts, like the landing places on a long flight of stairs. The development had been arrested by something, and was not made up for by after growth. Now, on the same piece of paper my friend had also registered the various infantine illnesses of the children, and corresponding to each illness was one of these halts. There remained no doubt in my mind that, if these illnesses had been warded off, the development of the children would have been increased by almost the precise amount

as the fact of these maladies shows that illness and death are necessary incidents in a regular sequence of constitutional changes beginning at birth, and upon which external circumstances have, on the whole, very small effect."

The influence of early infantile disorders in retarding the growth of the body, and in hastening the onset of those diseases whose seeds have been planted in the body, has long been known. Against the development of physical degeneracy much that is good has been introduced into medicine, as for instance, the early diagnosis of diphtheria by culture and the use of diphtheria anti-toxin in preventing mild cases of diphtheria from becoming more serious, and checking the extension of the disease to members of the



SCHOOL GARDEN, CHICAGO OPEN AIR SCHOOL

lost in these halts. In other words, the disease had drawn largely upon the capital, and not only on the income, of their constitutions. I hope these remarks may induce some men of science to repeat similar experiments on their children of the future. They may compress two years of a child's history on one side of a ruled half sheet of foolscap paper, if they cause each successive line to stand for a successive month, beginning from the birth of the child; and if they economize space by laying, not the 6-inch division of the tape against the edge of the pages, but, say, the 10-inch division,

The steady and pitiless march of the hidden weaknesses in our constitutions, through illness to death, is painfully revealed by these histories. We are to apt to look upon illness and death as capricious events, and there are some who ascribe them to the direct effect of supernatural interference, where-

family and the community; but a good deal that is mediaeval in medicine, and which ought to have been cast aside is still retained. Think of quarantine! A maritime measure, useful at seaports, being still practiced in inland sanitation. And of chemical disinfection and fumigation still holding their good, old-fashioned places in spite of teachers like Metchnikoff, who says: "Instead of imposing useless quarantines; instead of blindly distributing disinfectants, we now endeavor to lay our hands on the actual source of the contagion." We have proof that we have laid our hands, if not on the actual sources of the contagion, at least on the cause of the soils being prepared for the contagion; and shall we, therefore, in the light of the real knowledge we possess, continue to impose quarantines and make smokes, or shall we avail ourselves of the knowledge we have, and address our efforts to the real work,

which is not to be found altogether in quarantine, disinfection, establishing dispensaries, furnishing hospitals, camps or schools, but of preventing disease in the home, and in the school by training our children's bodies to resist disease?

The real work of medical school inspection with respect to the prevention of tuberculosis lies in that extension of the work which shall prevent the preparation of the child's body for the reception and growth of the germs of tuberculosis by the cultivation of early crops of childhood's infections.

This must be a part of the work of the medical school inspector and the family physician. The medical school inspector must not only do his present work, but he must, and he will, enlarge and extend it

psycho-physiological laboratory where the physical and mental operations of the child will be observed and recorded just as progress in its studies is now recorded. And just as we now provide special classes for anaemic, tuberculous and physically defective children with fresh air, baths and lunches, we will make similar provision for all children, so that the normal child will be given just as good a chance for health as we now give to the abnormal child. In the school building pneumatic, dustless cleaning will take the place of dustful and doubtful cleaning with the broom. Ample quantities of fresh air, warmed and moistened, will be provided according to the needs of each child. Special fresh air classes will give place to general fresh air classes when the glass



BREATHING EXERCISES, CHICAGO OPEN AIR SCHOOL

through cooperation with the family physician and the school nurse. With the family physician he will help to spread abroad a knowledge of the newer hygiene; he will provide the family with the latest and best information concerning the relation of gastrointestinal diseases of infancy, infectious fevers, enlarged tonsils and adenoids and decayed teeth to the physical, as well as the intellectual life processes in the body of the child. With the family doctor he will be able to show how much better it is to keep the child well than to allow it to be more or less ailing, and he will be able to demonstrate what the removal of defects already in the child's body may accomplish in improved physical development and mental work. As the duties of medical school inspection unfold and extend every school will have its medical inspector, its school nurse, its attending dentist, and ultimately its

from the upper row of sashes is removed from every window in every school room and cheese cloth screens substituted. Every school will then be an open air school.

When these things are accomplished, medical school inspection will have taken its proper place. Perhaps it may even break into the Sunday school some day, and a dental chair be placed to one side of that of the Sunday School Superintendent. And it will help to banish tuberculosis from the face of the earth by urging the prevention of infantile infections, and by advising and assisting in the removal of those defects in the child's body that result from faulty sanitation and bad personal hygiene. In our work against tuberculosis, let us not forget that in order to have tuberculosis we must first make tuberculosis; that in order to have disease, we must first cultivate the soil and sow the seeds.

TEACHING THE ESSENTIAL FACTS OF TUBERCULOSIS TO SCHOOL CHILDREN

BY OSCAR H. ROGERS, M. D.,
OF THE SANITARY LEAGUE, YONKERS, N. Y.

The task which the New York State Charities Aid Association lays before its local committees for the next five years, that there shall be in New York State no uncared-for tuberculosis in 1915, seems from the steadily increasing popular interest in the subject to be quite within the range of practical accomplishment and I am sure that those who are in charge of the movement may count unreservedly upon all of us to do our share to attain this result.

But even if this result is secured, we must remember that we shall then have provided only for those who have been attacked. We shall not by doing so have accomplished much in the direction of prevention. Prevention, it appears to me, is the broader and more difficult problem, and it is to this aspect of our campaign that I think still greater effort should be directed.

One-third of all who die in middle life are victims of this preventable disease. I think that the facts are still more strongly presented when we say that one-third of all persons who die between 20 and 45 years of age die from tuberculosis. Even when put in this form, we under-state the facts, for the reason that we fail to take into account the unequal distribution of this burden upon the various elements of our population. The well-to-do suffer comparatively little from tuberculosis. Much fewer than one-third of their deaths in early adult life are due to it and the burden of the disease bears correspondingly heavily upon the poor. Tuberculosis among the well-to-do is in a sense a sporadic disease; it is brought in from outside and is due to accidental infection. Among the very poor it is endemic; it is a necessary concomitant of their manner of living. It is essentially a disease of poverty, of bad housing conditions, of under-feeding, of unsanitary workshops, of intemperate habits. It is among the poor that we find its strongholds and breeding places, and here is where it should be attacked and if possible stamped out.

Mr. Charles Booth, in his notable study of poverty, as he found it in the City of

London, estimates that thirty per cent. of all chronic poverty is caused by ill health. It would be a most interesting study to determine by careful research how large a proportion of this ill health which causes poverty is due to tuberculosis alone. If thirty per cent of the deaths among our adult population, taken as a whole, are due to tuberculosis, may we not say that at least fifty per cent. of deaths among the very poor are due to that disease? My own impression is that that estimate is not too high, that tuberculosis and chronic poverty constitute a vicious circle, each reacting so as to produce the other, and that no real progress may be made in our campaign unless we somehow manage to break this vicious circle. I wish to strongly urge this point of view, that our campaign must be directed against the tuberculosis of the very poor. Poverty and ignorance unite to produce those conditions which favor the spread of tuberculosis. Tuberculosis contributes mightily to the poverty and ignorance among us.

A short time ago it was my good fortune to run across a notable paper on "Our Children, Our Schools and Our Industries," by Dr. Andrew S. Draper, Commissioner of Education of New York. This contribution, which appeared with the annual report of the department for the year 1908, is so valuable that I recommend it to the attention of all who have not already read it. Dr. Draper appeals for some radical change in school instruction, for an increase in the amount of industrial training, for less "mere information" and a larger proportion of practical development among school children. I refer to this paper more especially for the reason that Dr. Draper presents in it some facts which I believe have a very practical bearing upon our campaign. I think that the impression is very general among us that the great majority of children who enter our public schools continue their course of instruction at least through all of the elementary grades. Dr. Draper, in the paper to which I have just referred, tells a very different story, and I confess that I was very much

shocked to find that the facts were far otherwise. I find upon inquiry that the age of children in the first grade in our public schools is probably from seven to eight years, and I wish to present a table, prepared by Dr. Draper, showing the percentage number of children in each grade after the first. To this table I have added the approximate ages in each grade:

Grade	Approximate Age	Percentage
1st.....	7 to 8 years.....	100%
2nd.....	8 to 9 years.....	82%
3rd.....	9 to 10 years.....	79%
4th.....	10 to 11 years.....	74%
5th.....	11 to 12 years.....	67%
6th.....	12 to 13 years.....	58%
7th.....	13 to 14 years.....	47%
8th.....	14 to 15 years.....	40%

Is it not a startling fact that one-third of all the children who enter our public schools drop out at or before the close of the fourth grade of the elementary schools? It is quite as startling that over fifty per cent. of all children leave the public schools at or before the seventh grade, before the close of their thirteenth year. Finally and still more startling, sixty per cent. of all the children who enter the primary schools fail to graduate from them.

This is indeed a striking arraignment of our civilization. These children pushed thus prematurely into the struggle of life are hopelessly ill-equipped, hopelessly unprepared to meet the competition of society. They are foredoomed to constitute the submerged portion of our population. They are predestined to the hardships and privations that accompany imperfect adjustment, and among them are sure to be found the greater number of the victims of tuberculosis. They constitute one-half of the vicious circle to which I have already referred.

It is hardly germane to the subject to discuss the social and economic wastefulness of permitting the children of our people to go out into life thus imperfectly equipped, but it is clearly our interest to decide whether we should not make some systematic effort to equip them at least in so far as concerns one of the greatest dangers to which they will be exposed. Can we not manage somehow to forearm them against the disease which has caused probably fifty per cent. of the deaths in the adult population in their station in life? These children who are withdrawn thus early from the public schools are those who are destined to constitute the very stratum of society which is most in need of the knowledge which we are endeavoring

to impart. They are the children of poverty and as they grow up they will become the parents of the next generation of the very poor. They have had little training in right living and their children after them will have quite as little. Their parents before them have taken on little of those changes in habits and customs which modern hygiene and sanitation demand and they in turn will grow to maturity and will perpetuate in the next generation the habits of their parents. As I see the problem, there is no one point of attack more important for the accomplishment of our purpose than that which is offered in the persons of these children. If we are to render our educational campaign efficient and of lasting value, we must bring our energies to bear upon this point of attack.

If thirty-three per cent. of the children of the State leave school before the close of their twelfth year, we must manage somehow to give them, before we lose control of them, a fair working knowledge of the disease. If fifty per cent. of the children leave school before the close of their thirteenth year, we must not allow them to pass out from under our control until they have been thoroughly drilled in a knowledge of the disease and how to prevent it.

I have already called attention elsewhere to the work that has been done in Yonkers in this direction during the past few years, and I need not refer to it here in detail, but may simply add that since I had the honor to bring this subject to your notice, our Board of Education has extended this instruction to all of the public schools of the city. Yonkers is therefore one city in which this need of special instruction among those who will constitute the very poor of the next generation is being met. I am not prepared to say that the instruction which is afforded is the best that can be devised. I am sure, however, that it is of great value and that it will demonstrate that value more and more in the future.

Therefore I wish to appeal earnestly to the Education Department of the State, to Superintendents of Schools and to school teachers throughout the State, to take steps at once to bring to the young children in our public schools an elementary working knowledge of tuberculosis and how to combat it. And I should like to propose that, as a part of the comprehensive program of work to be undertaken and carried out during the next five years, this conference shall take steps towards bringing the entire weight of its influence to bear upon the educational authorities throughout the State, to the end that educators everywhere shall assist in extending a knowledge of tuberculosis among children of the schools.

Journal of the Outdoor Life

OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS; THE KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION; THE PENNSYLVANIA SOCIETY FOR THE PREVENTION OF TUBERCULOSIS; THE NEW HAVEN COUNTY ANTI-TUBERCULOSIS ASSOCIATION; SARANAC LAKE SOCIETY FOR THE CONTROL OF TUBERCULOSIS; PROVIDENCE, R. I., LEAGUE FOR SUPPRESSION OF TUBERCULOSIS; ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS OF THE DISTRICT OF COLUMBIA, JACKSONVILLE, ILLINOIS, ANTI-TUBERCULOSIS SOCIETY.

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The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

NO UNCARED-FOR TUBERCULOSIS IN NEW YORK STATE IN 1915

With the inauguration of the campaign to insure adequate care for all cases of tuberculosis in New York State by 1915 the anti-tuberculosis movement begins the realization of one of its chief ideals over a considerable geographical area. It has long been theoretically held that rigid prophylaxis in all open cases will check the spread of tuberculosis, and even if the bare statement of the proposition does not prove itself, there has been abundant direct evidence on a small scale that the belief is well founded.

Briefly, we may look for the elimination of tuberculosis from two causes. It may come from such sanitary precautions as are planned for New York State particularly in the hospital care of advanced cases and it may come from a method of immunization or treatment comparable to vaccination against small-

pox or serum therapy in diphtheria. While much experimental work has been done, the possibility of the latter method being perfected is still remote. Accordingly, except for the scientists in laboratories, anti-tuberculosis workers must concentrate their attention upon the problem of providing the means, either at home or in institutions, for caring for every discoverable case of tuberculosis.

New York is the first to undertake this on a scale extensive enough to give much promise of success, and so the beginning there of this second stage of the work, after a most thorough preliminary campaign of education, is of the utmost significance and quite overshadows anything now being done elsewhere. It is putting to the test theories which have received the endorsement of the highest authorities in the world.

The complete plan for the State has been very carefully thought out, and in the papers read at the Albany Conference its various phases were elaborated. Taken together these papers constitute a syllabus for State tuberculosis prevention which should be far-reaching in its results. We publish in this issue all of

these papers, with the exception of one on Open Air Schools For Children Pre-disposed to Tuberculosis, by Leonard P. Ayres, Associate Director, Department of Child Hygiene, Russell Sage Foundation, which is held for another number where we will have other important material on the same subject.

STANDARDIZATION OF HEALTH CONSERVATION

There is now pending in the United States Senate a bill (S. 6049) introduced by Senator Owen of Oklahoma, which has for its purpose the establishment of a National Department of Public Health which shall unite under its jurisdiction all existing federal agencies for the preservation of the public health and the effect of which will be not only to augment and stimulate the efforts of the National Government in the matter of protecting the lives and health of the people, but also indirectly to co-ordinate and standardize the various public health agencies, whether federal, State or municipal, throughout the entire country.

Probably the first idea of those whose attention is directed to the proposed National Department of Health is that such a department will concern itself, first and foremost, with new and original measures for the protection of public health. It is probable, however, that the most far-reaching influence of such a department will be in the unification of work which has already been begun, even though it may not now be influenced by any of the national bureaus.

The United States Department of Agriculture is a wonderfully successful organization. With the channels through which it accomplishes its purpose already well defined, and with its prestige thoroughly established, the vari-

ous State and local institutions for the promotion of agriculture and the conservation of animal and plant life look to it for guidance, and it is not too much to say that to a very large extent State and local policies in this direction are determined from the national headquarters in Washington. In matters of public health there is no such unifying agency.

It does not seem to have been appreciated by the public at large that systemization of sanitary measures are as important in matters of human health as of that of the lower animals. We have been content to let each locality work out its own salvation, make its own mistakes and profit by them, while neighboring States must fight over the same ground unaided and unencouraged.

If Senator Owen's bill becomes a law this condition will be happily ended. We feel that on this point we can speak confidently, for in the anti-tuberculosis campaign we have abundant evidence of the value of co-ordination and standardization. Through the national organization and the State anti-tuberculosis associations even though privately conducted, the work of one locality is co-related to that of another, and through the widespread educational propaganda success in one place immediately becomes the ideal to be achieved in another.

INSTITUTIONAL CARE OF TUBERCULOSIS

(Continued from page 109.)

per cent., it is probable that the cost would be correspondingly increased.

The principal item of expense in the Sanatorium is, of course, the food, and to keep this item within bounds, especially at a time like the present, when all food stuffs are so high, and at the same time to provide a dietary which shall meet the severe requirements of this class of individuals, requires no small degree of skill in preparation and judgment in purchasing. The chief source of economy naturally lies in the elimination of waste, but there are innumerable little ways of saving without in any way detracting from the nutritive value or the appetizing features of the diet, which a competent dietitian knows how to practice. As a rule the cheaper food stuffs are the more expensive of preparation. Nevertheless, it is not only good economy, but more effective from a dietetic point of view, to pay for the greater culinary skill and use the cheaper food stuffs. Experience teaches that the results are more satisfactory both to patient and to physician. The average cost for the year of raw food material in the

annex of the Loomis Sanatorium does not exceed thirty cents per person per diem, even at present prices, and yet the dietary there is highly satisfactory from every view point.

The cost of diet necessarily increases with the advancing stage and complications of the disease and, of course, with the more complex social and dietetic habits of the patient, but these differences need not enter into the present discussion.

On the whole, it seems clear that the establishment of institutional provision for the consumptive is well within the financial competency of almost every county and large municipality in this State at least. Such provision should be made not only for the far advanced and hopeless cases of the disease, although such should have first consideration, but for the earliest cases as well. More complete segregation than it is possible to practice with present provision of this sort would go far towards reducing the incidence of the disease.

The educational advantages which would accrue to the community, wherever such institutional provision were made, would be inestimable, and finally, by such a plan, every person infected with tuberculosis could be given the best possible chance for restoration to health.

NOTES AND NEWS

CHANGES IN SECRETARYSHIPS

Alexander M. Wilson, executive secretary of the Boston Association for the Relief and Control of Tuberculosis, has been selected by the trustees of the University of Pennsylvania as Director of the Sociological Department of the Henry Phipps Institute for the Study and Treatment of Tuberculosis. Under the new arrangement, by which the institute is made a part of the University of Pennsylvania, there will be three departments with a separate director for each, the Department of Sociology under Mr. Wilson, Clinical Department under Dr. H. R. M. Landis, and the Department of Pathology under Dr. Lewis.

Mr. Eugene Kerner, formerly superintendent of the Ohio Valley District of the Associated Charities of Pittsburgh, has been appointed executive secretary of the Kentucky Anti-Tuberculosis Association. Preparations will be begun at once for a state-wide campaign.

Miss H. Grace Franklin has resigned the secretaryship of the El Paso Consumptive Relief Association and will go to California.

Miss Kathrine Gedney of Chicago has begun work as assistant secretary of the Wisconsin Anti-Tuberculosis Association. Miss Gedney's first task will be a social survey of Milwaukee.

NORTH CAROLINA CONVENTION

The annual meeting of the North Carolina Association for the Prevention of Tuberculosis was held in March at Greensboro and was an unusual success. The convention was held in connection with the American Tuberculosis Exhibition of the National Association for the Study and Prevention of Tuberculosis. Among the prominent speakers were Dr. Woods Hutchinson of New York, Dr. William A. Lambeth of the University of Virginia, Dr. J. C. Walton and Dr. J. Allison Hodges of Richmond. Dr. Charles Wardell Stiles of the United States Public Health and Marine Hospital Service, and Dr. Livingston Farrand of New York.

NATIONAL'S WESTERN EXHIBIT

The Western Tuberculosis Exhibition of the National Association for the Study and Prevention of Tuberculosis has closed its campaign in Oklahoma, having visited Oklahoma City, Guthrie, Shawnee and Muskogee. The exhibit will be shown next in Arkansas, opening at Little Rock.

HOW THE PRINTERS EDUCATE THEIR MEMBERS

The officers of the International Printing Pressmen and Assistants' Union have under-

taken a unique method of educating their members about the prevention of tuberculosis. Over a year ago it was decided to undertake a campaign to prevent the great spread of this disease in the trade, where the death rate has been unusually high. An international tuberculosis commission consisting of representative members of the union was assigned to the task. The commission has appointed sub-commissioners in each of the 400 cities where the union is represented. A series of six lectures was especially prepared for the use of the printers by the National Association for the Study and Prevention of Tuberculosis, and these lectures, printed and arranged in order, have been sent to each sub-commissioner. As nearly at the same time as possible these lectures, which are about ten minutes length, will be given in all parts of the United States and Canada. The first of the series has been given already and the others will follow at regular intervals. These lectures deal with the nature of tuberculosis and the ways of preventing and treating it. By this method it is anticipated that every one of the 30,000 members of the union will hear one or more of the lectures. Literature will be distributed also, and some plan for home treatment and care is being devised.

A site for a sanatorium in Eastern Tennessee has been approved by a referendum vote of all the members, and the buildings are being made ready for use.

MINNESOTA'S WORK

A report from the Minnesota Association for the Prevention and Relief of Tuberculosis says that as much progress in the organization of local committees has been made in the past three months as in the previous two years. There are now anti-tuberculosis associations in 21 localities, seven of them being county associations. Visiting nurses have been provided in seven cities and steps are being taken for the provision of rural visiting nurses in three counties. County hospitals have been provided in two counties, and several others are agitating this question.

PROSPEROUS YEAR AT WHITE HAVEN

At the recent annual meeting of the White Haven Sanatorium Association Dr. Lawrence F. Flick showed that the past year had been a prosperous one, in spite of the withdrawal of state aid and the change of policy in charging all patrons a nominal price. Dr. Flick said: "The past year has amply demonstrated the wisdom of our change of policy. We were in some danger of bankruptcy and now are on a sound financial basis with a fair prospect of completing our plant at White Haven. The board has decided to put up the balance of our administration building this summer.

"We have been criticised during the past year for excluding patients who cannot pay. Ample provision has been made in this Commonwealth for patients who cannot pay. The State maintains about one thousand beds for such cases and the city of Philadelphia maintains between three and four hundred. Besides these there are other beds maintained by private institutions, such as the Jewish Hospital of Philadelphia, the Episcopal Hospital of Philadelphia, and the City Mission. Free beds should be maintained for all advanced consumptives among the poor and working classes, but it is doubtful philanthropy to maintain free beds for early stage cases indiscriminately."

IOWA CAMPAIGN FOUR YEARS OLD

The state-wide campaign against tuberculosis in Iowa, which is being carried on by the Board of Control of State Institutions, is entering on its fifth year. A vigorous educational campaign has been and is being conducted.

Recently it was suggested that high school pupils write their graduation essays on tuberculosis, with the result that 150 students have undertaken to do this. Prof. William E. Jones of the Department of Public Speaking of the State University is writing a drama on tuberculosis, setting forth the problems that have to be solved in the anti-tuberculosis campaign. The drama is to be presented at high schools, lyceums, granges, etc., in all parts of the state.

DENTISTS AFTER TUBERCULOSIS

Following upon the announcement of the Thomas A. Forsyth foundation of \$500,000 for the care of children's teeth in Boston, active steps in campaigns for oral hygiene are being taken in several places. The prevention of tuberculosis and other diseases seems to be the main object of the dentists. At a recent meeting in Baltimore the State Dental Examining Board and representatives of the Maryland and Baltimore Dental Associations decided to conduct an educational campaign on the care of the teeth. An exhibition will be held in June. At Rochester, the dental society of that city has just voted to work in close cooperation with the Rochester Public Health Association. Similar movements are being forwarded in Lynn, Brookline and other cities.

INTERNATIONAL CONGRESS IN APRIL, 1911

The date of the next International Congress on Tuberculosis to be held in Rome has been set for the last two weeks in April, 1911. The Congress will be held about the same time as the Jubilee of the Independence of Italy and the National Exhibition of Art.

The place of meeting for the Congress will be at the Castello St. Angelo (Moles Had-

rian). The subject matter for discussion will be divided into five sections, on the origin, spread, prevention, treatment, and organization for the campaign against tuberculosis. Arrangements have been made also for special meetings similar to those held in Washington at the last International Congress.

The president of the committee of arrangements is Mr. Guido Bacelli, and the secretary general is Professor Dr. Ascoli. The headquarters of the committee and the secretary general are at Via in Lucina, Rome.

NOTES FROM THE FIELD

The Montefiore Home of New York has secured a new site in the Bronx and will enlarge its capacity to 600 beds.

The new buildings at the Iowa State Sanatorium have been completed, and increase the capacity of the institution to 140 beds.

The first tuberculosis dispensary in New Brunswick was recently opened in St. John by the Anti-Tuberculosis Association of that city.

The Association of Collegiate Alumnae of San Jose, Cal., have undertaken an aggressive campaign against tuberculosis in that city.

A site for the South Dakota State Sanatorium has been selected at Custer, and arrangements are being made to begin building soon.

The first annual conference of the Tennessee State Board of Health with county and city health officers was held at Nashville on April 6th and 7th.

A new hospital for consumptives has been opened at St. Catharines, Ontario. The hospital is situated on the banks of the Welland canal.

The negroes of St. Louis have organized an Anti-Tuberculosis Society, for the improvement of conditions among the colored people of that city.

The Delaware Anti-Tuberculosis Commission has opened tuberculosis dispensaries at Wilmington, Harrington, Seaford, Milford, Georgetown and Lewes.

The Roman Catholic Societies of Wilmington, Del., have decided to erect a shack at "Hope Farm," the sanatorium of the Delaware Anti-Tuberculosis Society.

The State Board of Health of Tennessee is reprinting the entire chapter on tuberculosis, written by Dr. Louis Leroy in Lippincott's Physiology, for general distribution.

Dr. H. E. Kirschner, superintendent of the Iowa State Sanatorium, reports that the hotel keepers of his state are remonstrating about the largely increased number of "fresh air cranks" who leave their windows open on cold nights, freezing plumbing and making a demand for more bedding.

INTERNATIONAL CONFERENCE ON TUBERCULOSIS

The program for the Ninth International Conference on Tuberculosis of the International Anti-Tuberculosis Association, to be held in Brussels, October 5th to 8th, has just been issued. Probably the most interesting subject to be discussed will be that with regard to the work of women in the campaign against tuberculosis. A revised list of the members of the International Anti-Tuberculosis Association together with the constitution and by-laws has been published.

The referendum vote of the International Printing Pressmen and Assistants Union in the matter of establishing a tuberculosis sanatorium in Tennessee has resulted favorably.

Plans for a \$100,000 sanatorium have been adopted by the trustees of the Georgia State Sanatorium. The institution will be located at Alto, on the Southern Railroad near Mt. Airy.

Missouri's State Board of Health has divided the state into 900 districts for the reporting and registration of contagious and infectious diseases, in accordance with the vital statistics act passed last year.

A decision of considerable importance, recently reported by a committee of the Board of Directors of the Central Poor District of Luzerne County, Pa., gives authority to county boards to establish local tuberculosis hospitals.

The San Antonio, Texas, Board of Health has passed a resolution calling upon its secretary to spread abroad the warning that indigent consumptives will not be treated hereafter by the city or county, unless they are residents of long standing.

One effect of the increase of the force of municipal tuberculosis nurses in Baltimore from two to fifteen was that in the second week of their work 116 cases of tuberculosis were reported as against 17 for the same week last year.

A municipal tuberculosis commission has been appointed in Lafayette, Indiana, for the purpose of recommending ways and methods by which the city may have a hospital and a sanatorium for curable and incurable cases of tuberculosis.

The first meeting for consideration of the work for which it was created was held by the International Commission for the Control of Tuberculosis Among Domestic Animals at the Hotel Tuller in Detroit, Mich., on March 1 and 2. The Commission, made up of experts appointed by the Canadian and United States governments last fall, had a meeting in Buffalo in January, but did little more than organize.

It is hoped to have the Arkansas State Tuberculosis Sanatorium ready for occupancy by July 1.

An ordinance creating a municipal tuberculosis commission is being considered by the Baltimore Common Council.

The Louisiana Legislature is considering a bill calling for \$100,000 to establish a tuberculosis sanatorium.

Mrs. E. H. Harriman has given \$25,000 to the Adirondack Cottage Sanitarium for the erection of a memorial laboratory.

A tuberculosis dispensary, the first in Colorado, will be opened soon at Denver under the direction of Dr. Sherman G. Bonney.

In a statement recently issued by the California State Board of Health it is said "that the consumptives of California number 40,000."

Some of the sidewalks in Dennison, Texas, are of vitrified brick, every fourth or fifth brick bearing the imprint, "Don't Spit on the Sidewalk."

The St. Louis Society for the Relief and Prevention of Tuberculosis has purchased a farm at Kirkwood, where a sanatorium will be established at once.

The Vermont Tuberculosis Commission, which has been in existence since 1902, has been abolished by act of legislature and its powers transferred to the State Board of Health.

An exhibit of a model sick room for tuberculosis or of any contagious or infectious disease was made by the St. Louis Municipal Commission on Tuberculosis in the National Household Show recently.

During the past nine months over 500,000 people have visited the Tuberculosis exhibit of the Committee on the Prevention of Tuberculosis of the New York Charity Organization Society.

A tuberculosis colony will be established by the Evansville (Ind.) and Vanderburgh Association for the Prevention and Relief of Tuberculosis. Over \$6,000 has been collected for this purpose.

After continued wrangling the Common Council of Providence, R. I., has authorized the Hospital Commission to use one of the wards of the new City Hospital for tuberculosis patients.

In San Francisco an ordinance has been adopted requiring the reporting and registration of tuberculosis cases, which provides for the compulsory removal to a hospital of consumptives who are a menace to the health of those about them.

As a result of a conference on consumption of the local Boards of Health in the metropolitan area of Adelaide, South Australia, a comprehensive program for tuberculosis work is being considered by the provincial legislature, and local ordinances have been enacted in many towns.

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The first annual report of the Delaware State Tuberculosis Commission has been issued and shows that, among other things, six dispensaries have been established, four nurses employed, a large number of patients treated at the Delaware Sanatorium and that an exhibit has been prepared for state work.

Elections on bond issues for the erection of municipal or county tuberculosis hospitals will be held in the near future in Seattle, Des Moines, Houghton, Mich., and Kansas City, Mo.

The Seattle School of Sanitary Science, devoted to the dissemination of information and advice concerning matters of health and sanitation and embracing the work of the Department of Health of Seattle, has been formed.

The Chicago *Tribune* recently contained the notice of the death of Frank Simon, who was the sixteenth employee to die of tuberculosis contracted while serving as teller in the office of the Cook County Custodian and Treasurer.

It has been announced that Mrs. William K. Vanderbilt, who is building four model tenements in New York City for the exclusive use of consumptive families at a cost of \$1,000,000, has decided that the \$60,000 annual income from these buildings should be used for the assistance of tuberculosis cases.

The accompanying illustrations show in a graphic manner one of the incidents of tuberculosis, which, while well-known, is seldom considered in ordinary discussions of this subject. Dr. Milliard Knowlton of Terre Haute, Ind., was impressed by the fact that so many children in the Vigo County Home for dependent children were there because of the death or incapacitation of one or both of their parents through tuberculosis. To convince himself that such was actually the case, he took two photographs, one showing all the children in the institution and the other showing those dependent because of tuberculosis parentage. He found that, out of the 75 children in the home, 34, or 45.3 per cent., were orphans or dependents because of the death or sickness of one or both parents.

Thinking that perhaps conditions in this particular institution might be unique or peculiar, Dr. Knowlton took similar photographs in two other orphan asylums near Terre Haute. In the Rose Orphans' Home he found 94 children in all, and of these 39, or 41.5 per cent., were orphans because of the death of a parent from tuberculosis. In the St. Anne's Orphans Home the largest percentage was found. Here, out of a total of 46 children, 22, or 47.9 per cent., were orphans because of tuberculous parentage. For the three institutions there were in all 215 children, and of these 95, or 44.2 per cent., were orphans or dependents because of tuberculosis in one or both parents.

The selection of the children was made in each institution with the greatest care, the family histories being searched and other reliable sources of information being questioned.

It is not improbable that similar results could be obtained by an examination of institutions of this sort in any part of the United States. It is suggested that pictures of children in institutions for orphans and dependents showing conditions like those in Terre Haute would be of great interest in tuberculosis exhibitions.



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THE PROGRESS OF ANTI-TUBERCULOSIS WORK IN PENAL INSTITUTIONS OF THE UNITED STATES

BY JULIUS B. RANSOM, M. D.

PHYSICIAN TO CLINTON PRISON, NEW YORK

The history of the tuberculosis work in the prisons of this country dates back, in so far as I am able to ascertain from available statistics and the only records extant, to the year 1889, at which time I began service as physician to Clinton prison, New York.

Soon after taking charge of the medical work of this institution I became impressed with the large number of cases of pulmonary tuberculosis in the hospital, many of them in a dying condition. Investigation of the general population, numbering at that time 867, resulted in the finding of many cases giving gross evidence of what was then termed consumption. Emaciated, dejected, stoop-shouldered, ill-nourished men were to be seen in almost every company, and a more thorough examination (although the examination would now be called superficial) led to the determination of upwards of 126 cases, which, judged by the standard now used in our present day classification, would not be considered early or incipient cases, but rather advanced and many of them far advanced cases.

The mortality statistics of the three prisons at this time also showed that from 60 to 75 per cent of the deaths in these prisons were due to tuberculosis, and from the investigation of the statistics in the reports of other prisons throughout the country conditions in many instances were even worse than those existing in the prisons of the State of New York.

Aroused and somewhat astonished at the result of my examination and the study of

statistics, I at once sought to find the causes which led to this deplorable state of affairs and determined in my own mind that aside from the general causes, such as the class from which a large percentage of the incarcerated criminals come and the susceptible age to tuberculosis at which the large majority are committed, the chief cause was the absolute disregard of any provisions for the protection of the general populations from infection through contact with the consumptive.

With this in mind I endeavored to interest the management of the prisons in the scheme to effect in some way the separation and isolation of all cases of tuberculosis. Such a suggestion was at first met by opposition by all concerned and in many cases with ridicule. It should be understood, however, that at this time the infectiousness or communicability of tuberculosis from one person to another had not come to be in any large degree accepted as established.

It was not until 1882 that Koch made the announcement of his discovery of the tubercle bacillus as the cause of tuberculosis and therefore of the infectious nature of the disease, and it was a number of years after this before his theories and claims gained any large degree of credence. For all time it had been held that tuberculosis was strictly a hereditary disease and that the havoc wrought in families was due to hereditary conditions and not to any other specific cause. Koch's announcement, therefore, set in motion a great tide of argument for and against the theory of the

communicability of tuberculosis. Back and forth surged this ethical, clinical, and pathological battle and bitter indeed was this warfare between the old idea of heredity and the new idea of communicability. To suggest, therefore, at this time taking precautions against the infection of a prison population from those ill with tuberculosis was to invoke not only opposition, but ridicule and not very complimentary appellations.

At this time consumptives mingled freely with the general populations of the prisons, no protection being observed or special treatment provided. The consumptives ate, slept and mixed heterogeneously, even when in the hospital.

My efforts in the direction of isolation and special treatment of tuberculous prisoners were made by direct argument and pleadings, but to rather deaf ears at best. I succeeded, however, in winning over to my view in some degree the then prison management, but no definite steps were taken and no provision was made for the care of tuberculous prisoners at this time.

Slowly but surely animal experimentation and the repeated demonstration of the communicability of tuberculosis by means of the implantation of the cultured tubercle bacillus into the bodies of live rabbits and guinea pigs won over the progressive element in the medical profession, and slowly but surely many of the believers in the hereditary theory of tuberculosis were obliged to give way, and lay believers in the theory of the infectiousness of tuberculosis developed here and there.

In my annual report to the Superintendent of State Prisons in 1890 some space was given to the discussion of the tuberculosis situation at Clinton prison and attention was called to the fact that 75 per cent of the deaths that year were due to this disease. It was not, however, until my annual report of 1892 that I urged specifically the infectiousness of tuberculosis and the necessity for isolation in one of the wings of the institution and special care of the men thus isolated. As a result the suggestion was adopted and the consumptives were isolated in the south wing, given special treatment, and exercised in the open air; and so far as I am able to determine, this was the first attempt at isolation and special treatment of any considerable number of tuberculous prisoners in the United States at least, if not in the world.

For a number of years it had been the practice in the State of New York to transfer to Clinton prison from Sing Sing the sick and worn-out and ne'er-do-well prisoners, who were largely the product of the contract system then in vogue in the prisons of New York State. At this time the whole object of the prison management seemed to be to make a showing in a financial way, competition then existing between the different prisons on this account. Therefore these transfers were not made so much from sanitary or humanitarian reasons as to get rid of the non-earning prisoner.

The principal industries at Clinton prison at this time were the mining of iron ore and its manufacture into charcoal iron. The charcoal used in this manufacture was from timber cut on the State lands, the work chiefly being done by convict labor. Most of this employment was consequently out of doors, which proved to be fortunate for the sick men and the mortality statistics of the prison, for the death rate would otherwise undoubtedly have been much larger. It was soon seen that many of the consumptives regained their health as a result of their transfer and outdoor occupation, and it gradually became the practice in quite a number of cases to transfer men sick with tuberculosis for the benefit of their health, not, however, in any systematic way, but in isolated cases, and through the occasional advice of the prison physicians. The great improvement in the health of the men thus transferred, even in some cases of advanced tuberculosis led me to suggest that it would be wise to establish the systematic transfer of all prisoners suffering from tuberculosis to Clinton prison, giving them also the benefit of isolation and special treatment. In 1893 a special isolation ward was built and used for the isolation of tuberculous prisoners during the latter part of that year, and so far as we are able to determine, this was the first ward built and set aside for the separate and special treatment of tuberculous prisoners. This ward accommodated 11 patients and together with the isolation quarters in the south wing constituted the only special means of caring for the tuberculous prisoners of the State.

In my report of 1894 I again urged the transfer of tuberculous prisoners from the different prisons of the State to Clinton prison. In June of that year my paper entitled "Tu-

berculosis in Prisons" was read before the National Prison Congress which convened at St. Paul, Minn., and was afterwards adopted as a part of the minutes of the New York Prison Commission.

In the prisons of the State of New York, from the year 1889 to 1894 inclusive, the deaths from tuberculosis had alarmingly increased, during the year 1891 reaching the high point of 76 deaths in the three prisons of the State. During the six years, 1889 to 1894 inclusive, there were reported 304 deaths, to wit, Sing Sing 99, Auburn 154, and Clinton 51.

These compelling figures at last developed an increasing sentiment towards the transfer, isolation, and special care of tuberculous prisoners in this State. The showing made even with the inadequate means of treatment above enumerated was most encouraging, as the death rate about this time began to decline, as for instance, in the next six years (1895 to 1900 inclusive), the death rate was reduced from 304 to 95. In view of these facts, the present Superintendent of State Prisons, the Hon. C. V. Collins, became deeply impressed with the necessity of better facilities for the carrying on of this work, and, in 1901, asked the Legislature for an appropriation to provide another special ward for the treatment of tuberculosis. The sum of \$2,500 was therefore appropriated for this purpose. This ward was built by adding another story to the north extension of the laboratory building, and though simple in construction, it nevertheless served the purposes of isolation, and observed, in a general way, the sanitary requirements for the use to which it was to be put, and was fairly well equipped for the care of this class of patients. This ward accommodated 43 patients. The early cases and those showing improvement from previous treatment continued to occupy the south wing, receiving special diet and exercise, and were kept isolated from the general population.

In connection with these wards, there was provided a good sized open-air court enclosed on four sides. This court was provided with benches, reclining chairs, elevated cuspidors in which to place antiseptic solution, toilet facilities, crematories for sputum cups and boxes, and supplied with running spring water.

The new ward at Clinton prison was occupied July 8, 1902, and this together with the

ward previously opened in 1893 constituted a hospital capacity of 54 beds, which were continuously used for the treatment of the different stages of tuberculosis until 1905, when a large special ward was built for the use of earlier and less advanced cases. This ward is 70x150 feet, built with a clerestory, giving an altitude from the floor to the ceiling of the clerestory of about 55 feet. The building is windowed on all sides as closely as safe architecture permits, the clerestory being entirely set with windows opening and closing by a mechanical device. In connection with these wards are: dining room, modern lavatories, toilet facilities for spray and tub baths, rooms devoted to the treatment of patients by incandescent lights, disinfecting room, examination rooms, coat rooms, clothes rooms, etc., etc. The ward is cheerful, light and airy, and admirably meets the purpose for which it was designed. Each patient in this ward has a white enameled iron bed furnished with woven wire springs, fibre mattress, feather pillow, sheets, woolen blankets, and a counterpane. At the head of each bed is a white enameled steel bedside-table with glass top and shelf, while at the foot is a comfortable armchair. Each patient is also supplied with a porcelain-lined drinking cup and a different form of sputum cup. The ward devoted to the treatment of far advanced cases is similar in most particulars.

When this ward was occupied, the old ward of 11 beds was remodeled into a well-equipped diet kitchen for the use of the hospital. The wards, kitchen, laboratory, etc., are built in the form of extensions and radiate from a central court, the roof of which is constructed of glass. Altogether, they cover a floor space of 20,000 square feet, and give a total bed capacity of 150 devoted to the treatment of tuberculosis.

As far as possible modern outdoor treatment is applied, the hospital patient spending the whole of his prison day outdoors in the special open-air court. Special clothing, such as overcoats, etc., are provided for these men during cold weather. They are fed a generous mixed diet in which proteids, such as fresh meats and eggs, predominate. All patients receive milk daily, and cases requiring it receive special or additional diet by order of the physician. A library of 1,200 volumes is furnished for the exclusive use of the tuberculous population.

On receipt of a tuberculous subject he is given a special examination including one of the tuberculin tests, and microscopic examination made of sputum, blood and urine, and a careful record made and kept of his condition. He is placed in the tuberculosis hospital and kept entirely separate from the general prison population. On admission to the hospital each patient is furnished with rules for his guidance, which are as follows:

Rule 1. Remember that tuberculosis is chiefly spread both to others and yourself by means of the dry spittle. Always spit in the centre of your spit-cup, never on the sides. Keep your cup clean.

Rule 2. Avoid smearing clothing or any article with spittle. Never swallow your spittle.

Rule 3. Keep everything about your bed, table and person clean, especially your clothing. Do not stir up dust. Keep your coat and vest buttoned and your general appearance as neat as possible.

Rule 4. Brush your teeth well and always rinse your mouth before eating; this can be done by taking a swallow of water from your drinking cup and discharging it into your spit cup. Do not drink out of another's cup or use his tooth brush, knife, fork, or spoon.

Rule 5. Try to eat everything set before you with relish, masticating (chewing) your food thoroughly. A cheerful eater will do well; a faultfinder will not.

Rule 6. Remember that to cure tuberculosis takes time, and that its cure depends largely upon yourself; that is, your habits and disposition. A cheerful, willing disposition to observe all rules, both of health and conduct, will help very largely towards your cure.

Rule 7. This unusual opportunity afforded you to rid yourself of, if neglected, a fatal disease is dependent upon your good conduct as a prisoner, and cannot be continued unless you show appreciation by obeying all rules and deporting yourself in a proper manner.

When the disease is arrested or apparently cured he is placed at light labor until he is discharged from prison.

Patients are admitted to this hospital by direct commitment from the court to the prison, but by far the larger number are transferred on order of the Superintendent of Prisons from other penal institutions of the State. The number of patients transferred since the beginning of this work to January 31, 1910, was 1653.

In the meantime in other institutions there had been more or less interest manifested here and there by prison officials, and more or less discussion of the subject had found place in the programs of prison associations, etc., all of which began to bear fruit. It is noted in *The Campaign Against Tuberculosis in the United States** that in the summer of 1894, sputum examinations in suspected cases were begun in the State penitentiary at Stillwater, Minn., and in 1895 that tuberculous patients in the hospital at Wethersfield prison, State of Connecticut, were kept in a separate ward accommodating eight patients.

Quoting from reports, the Tuberculosis Directorate, and from the correspondence of prison physicians, we glean the following information as to the progress of tuberculosis work in the several institutions hereinafter named:

"In 1899, the State of Texas, upon the recommendation and co-operation of the penitentiary officials, established a farm for the treatment of tuberculosis at Huntsville, Texas, known as the Wynne Farm; thus Texas was the second State to make any provision for the transfer, special treatment, and isolation of tuberculous prisoners. This farm is located upon high and well-drained ground, situated about two miles from the town of Huntsville. The farm is owned by the State, and is under the supervision of the penitentiary officials. The incorporation is a broad one and does credit to the State of Texas in that it not only received those suffering from all stages of the disease, but also made provision in a legal way for the transfer, under the direction of the superintendent of the penitentiaries, from all penal institutions of the State, including jails, of any inmate suffering from tuberculosis. It is aimed to do this as soon as the disease is recognized. Every possible precaution is exercised in the way of cleanliness and the destruction of sputa, etc. The men are employed in light farm work, gardening, poultry and stock raising. Forced feeding is practiced and only mild medicinal treatment is used."

*A directory compiled by the National Association for the Study and Prevention of Tuberculosis, to which we are indebted for information herein quoted relative to a number of the institutions.

The House of Correction located at Deer Island, Mass., as early as 1901 utilized a wooden building for the care of tuberculous inmates. This building was situated on the high part of the island and furnished a capacity for eight patients.

In 1904 it became my province to make a report on tuberculosis in penal institutions of the United States to the 58th Congress, for transmission to the 7th International Prison Congress. In making up this report, there were 97 applications sent out to the different institutions, and 77 replies were received representing 38 States and two territories. While the answers showed that there was an awakening to the necessity of the separate and special treatment of tuberculous prisoners, and a number of institutions were setting aside wards in an attempt at partial separation, there were only two institutions that were doing any definite and considerable work in that direction, so far as we were able to learn, namely, Clinton prison, N. Y., and Huntsville, Texas. Since that time, however, there has been a decided advance all along the line, and we find a number of States are establishing institutions for the special treatment of tuberculous prisoners.

In 1905 the workhouse at Greenbank, Del., provided 10 cells with large exercise room and open porch, and special attention was given to diet and sleeping arrangements.

In October of 1905 the United States penitentiary at Atlanta, Ga., established a tent system for the care of tuberculous prisoners with accommodation for 15. Special attention is given to diet and exercise, and a separate tent is utilized for each prisoner.

In 1906 a special hospital for the care of tuberculous prisoners was opened in connection with the Georgia Prison Farm at Mill-edgeville with equipment including a tent to accommodate 16 patients. The hospital is a well-ventilated building accommodating 34 patients, and it is situated in the centre of a 3,000 acre farm. The patients assist in the farm work when able, and special attention is given to diet.

In 1907 the Prison Camp and Hospital was opened at West Rutland, Mass., with a capacity for 40 tuberculous prisoners, and this was the beginning of a systematic attempt on the part of the State of Massachusetts to segregate all tuberculous prisoners at one place. The camp is situated near the State

Sanitarium at an elevation of 1,000 feet, the buildings of which are all of modern type and now enlarged so as to accommodate 100 patients. All prisoners of the State are transferred to this camp from any State prison in the State as soon as it is determined that they are suffering from tuberculosis.

In 1907 there was also established at Columbia, S. C., a special hospital for the treatment of tuberculous prisoners with a capacity of 50, and well equipped at a cost of \$10,000. Quoting from the prison report we find: "The hospital for the treatment of tuberculosis cases in this institution was built in 1905 and opened for patients in the fall of 1906. The ventilation of the building is as near perfect as possible, large glass bay windows surrounding the wards with ample space for the admission of sunlight and air; then we have a roof garden where the patients go every day on sunny days and bask in the sun for hours at a time. There are two floors to the brick building, upstairs for the negroes and downstairs for the white. We attribute what success we have enjoyed to an early recognition of the trouble which after definite diagnosis we then separate the patients immediately to the consumptive hospital, when we practice Hygiene vs. Drugs, though we treat symptoms and depend mainly on sun and air for cures."

At Lassiter, Va., there has been established, in connection with the Richmond penitentiary, a farm sanitarium where tuberculous inmates are treated in tents and specially constructed cottages. Those who are able to are required to do light labor. This hospital, which conforms to the Loomis idea of hospital construction, has a capacity of 30 beds, and is equipped with modern furniture easy to sterilize.

During the past year Colorado appropriated \$18,000 for the purpose of erecting a special building for the treatment of tuberculous inmates.

Missouri State penitentiary has been for some time giving attention to the care of tuberculous prisoners, and they utilize the top floor of the general hospital for this purpose. During 1909 plans had been made for a building for the open-air treatment of tuberculous convicts in this institution, and a site has been chosen facing the south and east and overlooking a walled inclosure. An open front will have removable protection for exceptional days. The estimated cost of the

building it is thought will be \$600. This pavilion will be used for the first and second stages. The advanced cases will still be treated on the third floor of the infirmary.

Indiana Reformatory at Jeffersonville has, for the past few years, provided a special hospital with a roof garden for the treatment of tuberculous prisoners. During favorable weather, these patients live continuously in the open air, day and night, only sleeping in the ward in the winter and spring months. Special attention is given to diet, etc.

Michigan Reformatory, located at Iona, and New Mexico penitentiary, located at Sante Fé, are both giving tuberculous inmates treatment in specially constructed, isolated wards. Special food, beds and nurses are provided at each prison, and special attention is given to diet, sanitary rules, and exercise. New Mexico penitentiary has a separate pavilion with a capacity of 5 inmates. This institution is located at an elevation of 7,000 feet above sea level.

One of the most interesting features of tuberculosis work in connection with the prison is that of the tuberculosis hospital in the Philippine Islands which has a capacity for tuberculous inmates of 200. It is also interesting to note that this is the only prison hospital exclusively used for the treatment of tuberculosis. These tuberculous prisoners are transferred from a prison with a population of 3,500 called the Bilibid.

The New York State Reformatory at Elmira, N. Y., has for some time given special attention to its tuberculous inmates. We quote from the physician's report of the work as follows:

"A careful physical examination is made upon the arrival of the inmate. In suspected cases where tuberculosis is not demonstrated by the usual signs, the Von Perquet Tuberculin test is applied. Twenty-five per cent of the men received here are tuberculous. Segregation is accomplished by setting aside separate cells for the infected men. They are also supplied with separate equipment. Strict sanitary regulations are enforced and their cells are disinfected weekly by use of formaldehyde. These men eat at separate tables and are kept in the open as much as the routine will permit. The advanced cases are placed in the hospital where one ward of thirty beds is used exclusively. Advanced methods of diagnosis have demonstrated that

but few cases actually develop within the institution. The tuberculous prisoner under enforced routine of rest, food, and fresh air almost always shows improvement."

The United States penitentiary at Leavenworth, Kansas, also makes special provision for the care of tuberculous inmates. "The building used for this purpose is of artistic design and modern construction, stands apart from all others, is sanitary and complete in itself, and accommodates forty patients. It is provided with long promenades running its entire length, large windows and doors, screens, high ceilings, tiled floors, dining room, kitchen, physician's room, electric lights, hot and cold water, lavatory, baths, etc., and is so arranged as to afford the utmost of light, fresh air, sunshine, cleanliness, care, and comfort of and for the patients. In the matter of nourishment, eggs, milk, meat, vegetables, cereals, and fruits are provided. Every effort is made to arrest and eradicate the disease by the use of fresh air, sunshine, nutritious food, and the exercise and medicines indicated by the condition of the patient, in conjunction with mental quietude and absolute cleanliness. Each patient is instructed how to care for himself and protect others, both inside and outside the walls. Complete isolation of patients is still in the future here, but such isolation of advanced and dangerous cases is aggressively practised.

There are many other institutions giving special attention to their tuberculous inmates, but we have enumerated enough to show that the several States are becoming aroused to the necessity for the special care of tuberculous prisoners. It has all along been difficult to arouse sufficient interest among legislators and those concerned in the administration of penal affairs as well as the community at large, in what is an essential factor in the great work of exterminating tuberculosis from the haunts of man. This has been largely so because the important fact has been lost sight of that prison populations are tidal populations. There are annually discharged upon communities of the United States alone over 100,000 prisoners. Of this number of discharged prisoners a large percentage are more or less infected with tuberculosis, and scattering broadcast as they do throughout the country, many of them seeking homes and sustenance in the crowded portions of our large cities, they constitute a grave menace

to the social order from the tuberculosis standpoint. We cannot possibly estimate the power of infection which this vast army of discharged prisoners may possess; we cannot estimate just what share they may have had and to what degree they are responsible for the prevalence of tuberculosis in large cities and towns.

Reviewing the work accomplished by the several institutions giving special care to tuberculous prisoners, we are gratified by the very large measure of success attained. For instance, in the three prisons of the State of New York, during the period from 1889 to 1894 inclusive, the death rate was .01398 from tuberculosis, and from 1895, when the results from the special treatment and care began to show effect, up to 1909, the death rate was so reduced as to show the remarkably low percentage of .00442 and the maximum annual death rate of 76 reduced to as low as 7 in the three prisons, a very great reduction.

The Wynne Farm reported in the year 1904 a reduction of 50 per cent in the number received from jails, etc., of the five years of its then life, and at the present writing shows a marked decrease in the death rate at the farm.

The physician of the Columbus, S. C., State prison states that it is hardly possible to estimate the great blessing this hospital has been to the prisoners of that State, and the United States penitentiary at Atlanta, Ga., reports an infinitesimal death rate from tuberculosis for the past year. The Lassiter, Va., institution established in connection with the Richmond penitentiary also shows a low death rate. I am unable to give any further definite results of the treatment at other institutions, as many of them are still in a formative stage or just imitating the work.

It is not only in the reduction of the death rate by which the results obtained should be judged, for this is of secondary importance when compared with the results which have been attained in bettering the condition of the living prisoners. Formerly large numbers of prisoners were discharged from our penal institutions in the advanced stages of tuberculosis, uninstructed in the necessary care of their persons, both in the matter of protection to themselves and the prevention of infection to others. Emaciated, weak, and in numerous

cases shunned by those coming in contact with them, there was but a choice of two ways for these men—either return to prison or else become dependent upon relatives or the general community.

Under the present care of this class of patients all this has been changed, for all institutions report a goodly percentage of cases cured, arrested or improved, the number unable to earn a livelihood greatly reduced, and none ignorant of the necessary methods by which they can best secure improvement for themselves and protection for those with whom they are to be associated. Not only is society thus protected from the danger of infection, but there is a large degree of comfort possible to the afflicted ones discharged, and a decided economic gain to the general community assured. Through these results obtained, the constant agitation of the question, and prison tuberculosis exhibits made, there has come to be a growing interest in this phase of the tuberculosis work; but this interest in and recognition of the necessity for this work has not reached the point where anything like the best results possible are vouchsafed.

There is further need for an awakening in the minds of State legislators and State administrations as to how important this work is to the people of the State. Every State should follow the example of Massachusetts and provide special, well-equipped institutions for the care of tuberculous prisoners, and also follow the example of Texas in transferring from all its penal institutions, including its jails, every tuberculous prisoner to such an institution. In connection with the transfer system there should also be a mandatory examination law which would compel the examination on admission by a competent official physician of every person committed to any penal institution of whatsoever nature with a view to determining the physical condition of the prisoners, especially with reference to the presence of tuberculosis at the earliest possible time. If such laws were passed and enforced in every State the prison populations would soon become practically rid of the disease that for all time has been the scourge of prison life, and the general work of the extermination of tuberculosis in a large measure advanced.

THE FAMILY PHYSICIAN AND HIS TUBERCULOUS PATIENT*

BY EDWARD O. OTIS, M. D.

It is the family physician in the larger number of cases who first meets with the consumptive living within the radius of his practice, and, consequently, upon him rests the responsibility of detecting the disease; of providing or advising suitable treatment; and of protecting the family and immediate community from infection. If we are ever to stamp out tuberculosis, the family physician must and will be a very important factor in producing this devoutly desired result.

We hear much about the extreme importance of an early diagnosis when the case is in a supposedly curable state, and its importance cannot be too strongly emphasized; but we should not expect the family physician, however, who has to cover the whole realm of medicine and surgery, to equal the expert in applying physical methods of examination in the detection of the early case. But there are a few easily discernible symptoms which he can recognize as suspicious, at least, and if they can not lead him to make the diagnosis with sufficient certainty to institute treatment, he can put his suspected patient in the hands of an expert to verify or allay his suspicions.

A long continued cough—it may be but a slight hacking—more noticeable in the morning; loss of weight and strength, and a slight amount of breathlessness on exertion; loss of appetite and digestive disturbances; a slight rise of temperature in the afternoon, only determined by the clinical thermometer, and a rapid pulse, are, perhaps, the most leading and important symptoms in early tuberculosis of the lungs, and they are all easily detected and require no special skill in their detection and interpretation. The family history, also, has an important bearing; for although, as we now know, pulmonary tuberculosis is not inherited, a lessened resistance to it, or at least a susceptibility to it, is apparently a matter

of inheritance; and hence the importance of the family history; and when it is positive, it should render the physician very suspicious of all symptoms, however slight.

One other symptom must not be forgotten, for when it occurs we can almost surely say that tuberculosis exists, that is, hemorrhage or spitting of blood. In the immense majority of cases this symptom means tuberculosis, and yet so many physicians tell their patients who come to them with this symptom, that, as they can find no other symptoms or signs, the blood probably comes from the throat, and so the poor patient goes away in false security, only to discover later that the disease has become firmly established and his best chances for recovery are gone. So also does the physician sometimes lure his patient into a false security by telling him he has only a bronchial affection, when he knows, or might have known with due care in examination, that tuberculosis existed.

Secondly, having discovered the disease at an early stage, the next duty of the family physician is to promptly put the patient under the so-called open-air treatment, the only successful known treatment to-day. He may consider it best to send his patient to a sanatorium if one exists in his State. But this may not be the case, or the patient cannot for various reasons, or will not, go. Then the physician must with great exactness and with great attention to details mark out the course for the patient to pursue at home. He must write out a daily and exact plan of life, when, how and what to eat; when and how much to rest; how many hours to spend in the open air; how to arrange his sleeping room, unless he sleeps out of doors, as so many consumptives do now; how much, if any, exercise he must take; he must teach him to take his temperature twice a day, and weigh himself once a week; to take a cold bath in the morning, unless there is some special reason for not doing so; and, finally, encourage him with the hope that if he faithfully carries out such a plan of life, he will

*This is the first of a series of articles for club women, written and published by arrangement with Mrs. Rufus P. Williams, chairman of the health department of the General Federation of Women's Clubs.

probably recover. The trouble with so many family physicians is that they are not exact and specific enough in their directions and do not follow them up. It is best if the physician writes out the day's plan, providing for every hour of the day.

Then the other members of the family should be thought of, and the danger of conveying the infection to them by means of the dried sputum be avoided by impressing upon the patient the absolute necessity of depositing his sputum in a cup with water or some antiseptic, or upon paper napkins and putting them in a paper bag and then burning them before they become dry; he should be cleanly in every way so that neither his clothing nor anything else about him shall become contaminated with the sputum. There is no danger from a clean consumptive who disposes of his sputum in the way I have mentioned, and no one should treat him as a leper, as is sometimes cruelly done. The family physician should keep a sharp watch upon other members of the patient's family, and if any suspicious symptoms occur in any member, he should be carefully examined—better if all the members were examined, as we are now doing with families in which a case of tuberculosis exists.

And then comes the family physician's duty to the community in which he lives. Sooner or later most every case of tuberculosis comes under the care of the physician, and therefore the latter knows of the existence of such cases in the community; if notification to the Board of Health is required, as in the State of Massachusetts and in many cities, the physician should not fail to comply with this regulation; for in this way alone can the Board of Health keep track of the cases existing and disinfect the premises after death or removal. It is of the utmost importance that there should be the closest coöperation between the public health authorities and the physicians in the warfare against tuberculosis.

As has already been mentioned, the physician should see to it that every consumptive under his care knows how to safely dispose of his sputum, so as not to be a menace to others in the immediate vicinity. If, unfortunately, the physician is not called in until the disease has become advanced and hope-

less, he has two courses to pursue according to the circumstances of the patient. If proper care can be provided at home, the members of the family should be carefully and plainly instructed as to the sources of danger and how to avoid them by the prevention of the dissemination of the dried sputum. Everything about the patient should be kept scrupulously clean, and eating utensils, bed clothing, and everything else used by him should be used by no one else. When the patient coughs he should be instructed to hold a cloth or paper napkin before his mouth. It is hardly necessary to add that the patient should occupy his room alone.

If the circumstances of the patient are such that he can not receive proper and decent care or carry out these precautions, then, if possible, he should be removed to some hospital or home where this can be done. Hence the necessity of consumptive hospitals, accessible to every community.

In the larger sphere as conservator of the public health, the family physician can influence public opinion in favor of efficient preventive measures against tuberculosis, as no other member of the community can. He can create enthusiasm, and direct it in effective channels, and also, through his tuberculous patients who have become cured, he can teach the community the value of fresh, pure air, good food, and, in brief, wholesome, hygienic living.

We now possess ample knowledge to combat the tuberculosis scourge intelligently and effectively; the warfare is on, and the hosts marshalled; there are and should be no more important leaders in the conflict than the family physicians, for they have peculiar opportunities such as come to no other members of the community, and the obligation is incumbent upon them to avail themselves of these opportunities for the good of the public. If every family physician throughout the land should do his full duty towards his tuberculous patients, and towards the public in the way of prevention, there would be a tremendous advance in the tuberculosis crusade all along the line. The influence of doctors, when united, and urging measures which they believe for the betterment of the public health and welfare, is very powerful both with the people and the lawmakers.

HEALTH DEPARTMENT OF THE GENERAL FEDERATION OF WOMEN'S CLUBS

BY MRS. RUFUS P. WILLIAMS

With a membership of 800,000 women resident in every State of the Union, in Alaska, the Canal Zone, China, England, India, Mexico, South America, and West Australia, the General Federation of Women's Clubs exerts an influence second to few organizations.

The work undertaken is grouped under eleven heads and each is worthy of public interest, but it is the object of this article to call attention to some of the accomplishments of one department only, through the influence of which very great benefits have accrued and will continue to accrue to this nation.

With the motto "Victory through Unity" the club women in every State with a unity of purpose and a simple definite plan are *raising the standard of health throughout the country.*

On June 6, 1906, while in biennial convention at St. Paul, Minn., the delegates adopted a resolution that the "General Federation of Women's Clubs make the prevention and cure of tuberculosis a subject of study for the next two years," and thus the health department of the General Federation came into being and became an active force.

Woman has ever been in the forefront of every movement having for its object the alleviation of suffering, but the consideration of *disease* by a woman's club (unless it was a physicians' club), seemed most unpopular. When the resolution was introduced adverse criticism was heard on every side that "Disease, suffering and kindred topics should have no part in the club program."

Ever since the famous case where the "unjust judge" rendered his decision in favor of the persistent woman there have been others like her—and this resolution having its origin in a conviction that just this work was needed was not easily set aside. Also before bringing it to the convention, it had been enthusiastically endorsed by such acknowledged leaders of thought along the lines of the upbuilding of health and elimination of disease as Doctors Otis, Trudeau, Bowditch, Flick,

Knopf, Pottenger, Klebs, Wyman, Rixey and many others, as well as officers of a large number of organizations. Firm in a belief that many women could be found who would unite in an effort for the suppression of disease, the health department was organized with a chairman who has as members of her committee one woman in each State, who in turn is chairman of the health department of the State Federation. The efforts of this department have met with results almost beyond belief.

Realizing that for success we must not only awaken an interest but *arouse enthusiasm* in an unpopular subject, our plan has ever been simple but so constructed as to leave a place for local application and originality, the steps to be always forward, not one backward, and each woman to be a necessary unit responsible for a part of the results obtained. That this first conception was good is shown by the fact that we have held the coöperation of every club that has entered into the work and our adherents are constantly increasing. To show the enormous and rapid expansion of interest in this movement, in May, 1906, in only one State, that of Massachusetts, was the subject of health a part of the committee work of the State Federation, while in May, 1910, there is not a State in the Union which has *not* such a committee. In 1906 there were perhaps thirty clubs actively interested in the subject of the suppression of tuberculosis while in 1910 there are more than two thousand. May I ask, what does this mean? With an intelligent understanding and with better health conditions in the home, the school and the places of employment, what indeed can it mean but a stronger and more vigorous nation? "The hand that rocks the cradle" still "rules the world" and with a wider knowledge of the cause of disease and remedy therefore woman reaches to strike the blow which shall eliminate from her own home and that of her sister one of their greatest enemies. The worldwide sisterhood of the club woman is nowhere better shown than through the

work of the health department of the General Federation.

I have often said that our campaign for health has but two planks in its platform, *education* and *execution*; and that these two planks have as many props as can be devised to teach and apply the methods to be used for the prevention and also the cure of tuberculosis.

To prop the education plank we have used the wall card and health bulletin of the General Federation, have circulated health publications issued by the Federal and State governments, have furnished material for the public press, held public and club meetings having as their object the consideration and improvement of local health conditions, collected and circulated health traveling libraries with their accompanying pictures, collected and circulated State Federation tuberculosis exhibits, lectured at factories, stores, State and county fairs, churches, schools, and mothers' clubs, arranged school health days throughout entire States, have *insisted* with the *might of the home maker* that preventive methods against disease shall be taught in the public schools, and last but by no means least as an educator of public interest, have *earned* as well as used thirty-five thousand dollars during the twenty-one months of club work since the department was organized. As we work entirely without compensation, this money was used to alleviate suffering and to teach those who have good health how to retain it. We have built and helped to support camps, have organized anti-tuberculosis and visiting nursing associations, have donated school drinking fountains, have greatly aided in the opening of fresh air schools, beside supporting beds in hospitals and giving individual aid to those who are ill.

With the diplomacy in which we are drilled from early childhood, it is wise to refrain from speaking of many of the props of our other plank, that of *execution*, for while appreciation of our efforts urges to renewed energy and greater results, the lack of it does not deter us, for our object, the *building up of the health of the home*, is of greater importance than any consideration of ourselves. However, the heart of every club woman not only in that particular State but throughout the country is warmed and strengthened by such generous words as those of Dr. H. P. Coile, of Knoxville, when

he says that the movement which has resulted in an appropriation for a Tennessee State sanatorium is due to the initiative of Mrs. S. S. Crockett of Nashville. Dr. Crumbine of Kansas, one of the most successful of all State health officers, says:

"As secretary of the Kansas State Board of Health I have reason to be very grateful for the moral support as well as the active co-operation of the Kansas Federation of Club Women, particularly in the matter of the anti-tuberculosis crusade. I have never made an appeal to the club women of any town, with I believe three exceptions, and the appeals have been very often during the past three years, but what they have promptly and generously responded. With our traveling tuberculosis exhibit, in every town we visit, one of the first things we do is to get in touch with the local organizations of women's clubs and we find them willing to lend their time and influence toward making the exhibit a success, getting the people out to the exhibit and lectures. We feel that we could not get along without the women's assistance in this particular. Last September when the State Board of Health abolished the common drinking cup on the railway trains and in the public schools, they were subjected to considerable abuse from a portion of the male traveling public and male members of the school, but from the start we had the support of the women of the State, and I am glad to say that to-day it has already become nothing short of a disgrace for a person to use a public drinking cup. I speak truthfully when I say that the value of the work of the women in this State along lines of public health cannot be overestimated and it has been limited only because we men who are in charge of this work have not fully availed ourselves of their willing hands and ready hearts."

Mr. E. G. Routzahn, Director of the American Tuberculosis Exhibition, who perhaps more than any one man has had experience with dealing with organized club efforts, says:

"In the special part of the national campaign which has been under my charge, no other organization or group of people have proved so responsive and efficient in their co-operation as the women's clubs and their officers and members throughout the country. In many cases their enthusiasm and interest have done much toward general appreciation in the community, and frequently they have

carried some of the most difficult work necessary in the promotion of the exhibition campaign. Public observation covering the health work of the clubs has provided convincing evidence of their importance in the pioneer work as well as in the later broader developments of the manifold activities which go to make up the campaign against tuberculosis. The club women have proven enthusiastic and intelligent in their enthusiasm. The clubs have furnished initiative and leadership for many important lines of work. The leading women in the clubs have shown a result of club experience in the ability to do efficient work in other directions. The relation sustained by the club women with many other organizations of women has made it possible for the club leaders to reach the great body of women in most communities."

With such testimonials, of which these quoted are only examples, we must then feel that though our work may bring localities for a time into the "lime light" that very light awakens public opinion to such a degree that conditions are improved, and the town or city becomes more rather than less attractive.

I am reminded that not long since a gentle-

man seeking a summer home in New England chose a village where he found the wall card of the General Federation nailed to a tree. Said he: "If the women of any town are awake to the needs of good living conditions, their husbands and children will soon be so, and eventually public sentiment will require the enactment and enforcement of good ordinances for the protection of the public health. The wall card, then, is the reason for our going year after year to the village of M——."

In conclusion, then, may I say, that while we stand as sponsors for the activity of the *home*, we are but a part of the great army, each division of which must take its place before the work is entirely done. The Federal government must do its part, the State has definite work, the city and town and the individual citizen must all fall into line—and soon the warfare will be over.

A simple definite plan, generous recognition of the assistance rendered by each, and cordial coöperation, is all that is needed. Who have won the great battles of history—the pickets ever watchful, the officers who planned, or the body of men who keeping step advanced and did their full duty? Not any one, but all together.

SOME TRUTHS ABOUT TUBERCULOSIS

BY HORACE GREELEY, M. D.

While tuberculosis is caused and transmitted by a germ, a form of life similar to that that mildews our clothes, moulds our food, before the average person can be effectively attacked by it his health must be depreciated, he must be in poor health.

More moss grows upon dead and dying trees than upon the healthy. House plants struggling with unhealthy surroundings more often than others fall victims to the attacks of various insects, and so the person who from necessity or from choice fails to obtain for his body nature's minimum requirement in food, air and rest offers a most inviting soil to any germs of tuberculosis that may come his way. And this is so throughout nature; the parasite is always best accommodated by the weakling.

Without doubt everyone is somewhat exposed to the germs of tuberculosis as, within

our cities, one in every ten deaths is from the disease and over fifty per cent of all autopsies made on bodies of persons dying from all causes show the characteristic lesions, some long healed and others still active, produced by tuberculosis, while any sufferer may cough up daily as many as 1,600 million bacilli to each cubic inch of sputum. These germs may stick to his face and hands, clothes, drinking vessels, napkins, fall to the floor, and in turn be conveyed elsewhere. Flies crawling over exposed sputum carry it away upon their legs and trail it over our food, and wherever deposited it soon dries, and each bacillus, though with the patience of Bellarophon, usually mounts its Pegasus (a dust particle) and rides the breeze, often ending its aerial voyage upon the mucous membrane of our air passages or digestive tract, hence possibly to be absorbed into the blood and, if the individual be sus-

ceptible, to be screened out in the lungs and there produce its characteristic growth and effects so long as, through deficient tissue resistance, it is enabled to preserve the offensive.

Should the sputum fall where sunlight and outdoor air have direct access, all contained germs are destroyed within a few hours, the exact time depending upon what protection they receive from surrounding dirt. In sunless rooms, however, they are known to be capable of retaining their vitality for at least a month.

With the disease so prevalent and the bacilli so easily spread, we all undoubtedly acquire, with a considerable portion of our peck of dirt, a large supply of the germs, and only those individuals whose resistance is greater than the combined power presented by that number of the tubercle bacilli, gaining access at one time, escape infection. Even though the resistance be so low as to allow some development of the germ within, in the large majority of cases bodily reaction to the poison soon overcomes the infection and the immunity thus especially developed lasts a considerable time, but all of us, even if the germ never succeeds in developing sufficiently to produce symptoms or a disease process recognizable during life, undoubtedly, in the gauntlet we continually run down the line of life, repeatedly receive thrusts from the ubiquitous tubercle bacillus which many a time succeeds in planting a colony whose subsequent fate, and that of its host, depends entirely upon the ability of the blood to produce on call substances destructive to the invaders.

In dealing with tuberculosis, then, we must either prevent dissemination of the germs or make the individual so resistant as to defeat all attack.

In our inability to thoroughly accomplish either of these two objects, which, were even one possible, would at once eradicate the malady, we are obliged to do what we can to limit the distribution of the seed and to reduce the soil.

The first can be attained by the destruction of all the material coughed up by persons known to be consumptive that we can effect, and the well-known rules for this are so intimately connected with ordinary cleanliness that it should not be difficult to secure their observance by anyone near enough to godliness to be allowed the freedom of a civilized community.

To prevent the development of the predisposition, or to reduce it when present, every-

thing that tends to preserve the best general health must be sought—good food eaten, alcoholic drinks especially avoided, good habits kept, exhaustion guarded against, and (a particular in which most people fail) fresh air inhaled *constantly*. Ninety-nine out of a hundred people in our cities do not get enough. Our best town air is bad enough, and where one is shut up in a crowded car, or even in his bedroom, he breathes in over and over again waste matters that his and other bodies have expelled. No one would think of using water in this way, and air is at least equally important.

When one is ill of the disease, the sooner the conditions existing when it developed are changed the greater the chance of ultimate recovery, and if this rearrangement of the patient's habits of living can be accomplished in his home, and his recovery brought about there, the result is ideal, as thus the permanence of the reformation and consequent prevention of relapse is best assured, while one returning home, cured, from another place, might be more apt to lapse into old ways. Yet this is very difficult of accomplishment, since where an ounce of prevention was not provided it is hard to secure a pound of cure.

Even when one has recovered his health under the hygienic treatment, his future has to be cast to the principles laid down for the prevention of the malady, as his susceptibility has been proven and a relapse is always to be feared.

It is unfortunate that the average working man and woman never seek treatment until they are completely down and out, incapacitated from work, often till confined to bed; and when this stage is reached in tuberculosis the germs have usually such an extensive growth in the lungs as to render entire recovery improbable.

How to regain vitality if lost, and how to preserve it when restored, is the object of all rational treatment of tuberculosis, based upon the fact that as there is no known method of directly destroying the tubercle bacillus *in situ*, the next best thing to do is to so increase the resisting powers of the individual that his better toned tissues shall arrest further progress of the disease, or even exterminate the invading army.

For this restoration the prime essentials are abundance of pure air, good food and proper rest. The air should be of such quality as is best obtainable in the open and away from centers of population and industry. It

should contain no dust, bacteria or abnormal vapors, the disposal of which, in the case of the urban population, imposes such a gigantic task upon the respiratory organs, to increase the destructive action of the tubercular process; for the lungs, freed from this source of constant irritation, are enabled to concentrate their entire recuperative force to resist and destroy the existing disease. All outdoors should have such easy access to the patient's lungs as to insure against re-respiration of any portion of respired impurities or the inhalation of emanations from housekeeping processes.

The ordinary country air, almost anywhere in the United States, fulfills these conditions, and the "cure" may consequently be taken with almost equal hope of success in different localities.

A moderately dry air is only desirable from its action, in warm weather, of effecting rapid evaporation of perspiration, and, in winter, from its small power of abstracting heat; and a maximum amount of sunshine for its tendency to cheer and render outdoor life more agreeable.

As to temperature: extremes, especially of heat, are to be avoided, as such tend to debilitate and give discomfort, and localities in which the thermometer does not descend much below freezing in winter and rarely reaches ninety Fahrenheit in summer are favorable in this respect.

Cold, however, is not to be feared, as it is during winter that patients taking the outdoor treatment make the greatest improvement. It may be thought remarkable that they almost never catch cold, this being explained by the effect of the purity of the air together with its freedom from the bacteria that usually excite catarrhs, and the increased resistance of the individual due to the treatment's tonic influence.

One of the greatest benefactions of the open-air treatment is the rapid return of appetite and good digestion, of which advantage is taken to fully supply the current needs and to repair the past waste of the body by plying the individual with the maximum quantity of easily digested concentrated nourishment, especially albuminous products such as milk, eggs and fresh meat. The patient consumes at least six meals a day, as small quantities, frequently repeated, are more efficacious than heavier meals at longer intervals.

Medication is only employed to combat certain symptoms of the disease such as cough, for upon the building up process rests the burden of cure. Dettweiler, a German pioneer in the hygienic treatment of pulmonary tuberculosis, in showing a visitor over his sanatorium was asked the location of his pharmacy. He replied, pointing to his kitchen, "There it is."

Until well on the road to recovery no consumptive should take much exercise, as the inflamed lung needs as much rest as can possibly be obtained, and it is a generally ac-

cepted principle that absolute rest, in bed, should be enjoined while fever remains a symptom, and a patient should never be allowed to be the judge of the proper time for even the least activity, as his ambition in this respect is always so far ahead of his ability.

I have said that there is no specific treatment for the disease, but tuberculin-inoculation therapy is steadily gaining ground, and the confidence in it of those whom experience and opportunity qualify as best judges, the medical men of the tuberculosis sanatoria, is doubtless well placed. They have at least shown that those so treated are far less apt to suffer relapse than others whose re-established health depends solely upon the immunity built up by the unguided anti-bacterial forces of the body; while with the skilled use of tuberculin we undoubtedly can, as is indicated both by experience and theory, stimulate, elaborate and guide these forces to the complete subjection of the enemy and the establishment and (a very important matter for the future of the patient) maintenance of such immunity as will make relapse or reinfection impossible.

Statistics of the results of the open-air treatment are very difficult to give owing to the marked difference in the various cases taking it as to stage of illness, but it must be said that of all patients forty per cent have the disease-process arrested, regaining lost weight and well being, while incipient cases (those that have just begun to show signs of the malady) are apparently cured to the extent of seventy or even ninety per cent.

The advantage of sanatorium over what may be called individual treatment under the same conditions lies chiefly in the administration, as in the institution the necessary regimen can be enforced while in the other case the patient is left without constant supervision, and personal inertia, make shifts, the comfort of others in the household, mental disturbances, all conspire to nullify results.

The graduate patient of a model sanatorium appreciates the value of treatment received and, having been taught the proper method of disposal of sputum, is never again such a menace to himself or friends.

The institutions in the United States available at present for this treatment are indeed few in number compared to requirements, their capacity being only about one-twentieth of what is urgently needed, and very few of them reach that class most in want of their services, who cannot pay the board demanded, in many cases as much as \$25.00 per week, but who still desire to be independent and can afford \$5.00 or \$6.00.

It now remains for those public-spirited persons, both able and ready to render signal aid to suffering humanity, to give the necessary financial aid in multiplying such institutions, for no philanthropic enterprise ever undertaken could, for the expenditure required, yield such results.

THE STORY OF A DAY CAMP

BY MARY EASTWOOD KNEVELS

The story of the Orange, N. J. Day Camp really begins with the tuberculosis exhibit at which Miss Robbins spoke, for she it was who started the first enterprise of the kind in Boston four or five years ago. A Day Camp, she explained, is a place where people sick with tuberculosis can go and spend the day outdoors under medical care, where they can have good food and rest and such instruction in personal hygiene and the prevention of the disease as will render them safe citizens and

Several of us went at once to inspect the place, and I must say it took the eye of faith and enthusiasm to see all the possibilities we saw in it! The old barn stood back from the street with an unkempt grass plot in front of it. It was in a fair condition outside, but within the aspect was very doubtful. Two big coal wagons took up almost all the space in the carriage room and the floor yawned holes at us. Dust and cobwebs hung thick over everything, the two windows were so



A HORSE BARN TRANSFORMED INTO A REALLY EXCELLENT DIET KITCHEN

enable them to protect their own homes. These people cannot leave home to go away to get cured, because they have families to care for; they are not sick enough to go to a hospital, and until these camps were thought of there seemed no place where they could find help. What Miss Robbins told us made a strong impression on our minds, so much so that one of the members of our Anti-Tuberculosis League said we might use an old barn belonging to him and the garden back of it for a Day Camp, provided we could raise the necessary funds.

draped with them we could scarcely make out the dimensions of the place. When both the wide double doors were swung open, however, our spirits began to rise, for they showed the room to be about forty feet long by sixteen feet wide, with walls and ceiling in good repair. On the left a sliding door opened into the regular stable, divided into compartments for three stalls, and beyond these was a good sized open space. The whole was lighted by a window set high in the west wall and another sliding door which gave on a dubious vista of piles of coal dust, old bot-

tles and cans, and a fine shrubbery of burdocks, veteran plants with leaves as large as a dish pan.

Upstairs there were two large lofts, a small room with a door and window, some old musty hay, and any number of wasps and cobwebs.

In order to get to the garden, which was at the right of the barn, we had to go outside the building through a dilapidated gate, past an extraordinary collection of rubbish, iron pipes, pieces of boiler, etc. The garden was about half an acre in extent, and was threaded down the center by a tangle of grape vines. Towards the south were five or six large old apple trees which cast a generous shade over a space of rank overgrown grass. The fences everywhere were in bad condition and the ground beneath the rank grass rolled like the waves of the sea. At the west was an old cowshed without a floor, but even here the roof was in good shape. These were the premises that we surveyed with mingled delight and dismay, delight because there were such possibilities and dismay because it seemed as if it would take more funds than we could raise to put the place in order. Consultation and renewed study of the problem brought certain things out clearly.

There would need to be a considerable amount sunk in plumbing, because caring for sick people meant that this was a matter of vital importance. There must also be new floors laid in both the carriage room and the shed, and the shed would have to be fixed over into a shack for sleeping purposes. The plumber's estimate for his work, connecting with the sewer, putting a sink in the kitchen, and fitting up two closets, amounted to \$198.00. The carpenter's estimate was \$135.00. Meanwhile an appeal to the public was sent out. This appeal was accompanied by a little folder showing two contrasting pictures, one of a sick person in bad surroundings and the other a view of ideal conditions at a Day Camp. Beneath this last was written: "We can have this picture in reality if you all help!"

It would seem as if the exhibit had prepared people for the appeal because we netted about eight hundred dollars. On the basis of this sum we set about equipping a camp. We had a number of things given us to start with, particularly a dining room table and chairs, an icebox and scales, but there remained many things to be bought before we could begin work. A kerosene stove was chosen because of its cheapness. The largest

size with three burners and an oven cost but eight dollars and twenty-five cents and we found that a gallon of oil at 10 cents a gallon burned for about eight hours. All the dealers were willing to give us a percentage off on our purchases. Milk in bulk was six cents, and eggs, butter, and ice were correspondingly low. It is well in keeping house for such a camp to go directly to the dealers and make a bargain with them.

The cost of kitchen utensils was made smaller by some gifts, but where we had to supplement we did so with good materials, because we intended to keep the camp open another summer and we knew that saving in kitchen utensils did not pay. The same rule applied when we came to table ware and we got a good quality Rogers plate throughout. Our china was inexpensive, but not the very heavy kind, and we chose pretty blue and white bowls for pudding, cereals, etc. After some deliberation we decided that the educational value of a clean tablecloth was worth the cost of its purchase. Paper napkins by the five hundred cost fifty cents, and these were burned after every meal.

The sink and stove were all that gave the stable the air of a kitchen, but it was clean as flushing with the hose, plenty of hot water, strong soap and scrubbing brushes could make it, and there was never a reminder of the original use of our kitchen. A barn door covered with white oilcloth made a strong table, and the stalls were natural born closets. In the first we put our icebox and on shelves over the manger we kept vegetables, etc. The second our nurse used as a dressing room, for she always wore her uniform while at camp, and the third sheltered our kerosene can. We made a fine closet for pots and pans out of packing boxes. They were all different sizes, but we found this an advantage, for some we stood on end and some we put crosswise. A few odd shelves, a cupboard—one of our loans—a towel rack, and some hooks completed the furnishing of the kitchen.

When the windows and doors of the barn had been screened with netting the interior of the barn looked as cool and clean as you would care to see. A door had been cut through the north end opening into the garden and this we used entirely, as we did not want passers-by to peer in.

The clearing up outside was a problem. The old garden had been made a dumping heap of for so long that it seemed as if we could never get to the original layer of ground, but the scrapings and cleanings and

burnings were well worth while, and when this was completed and the fences somewhat straightened up, we had a fair piece of lawn. We did nothing with the vegetable garden, as it was so late in the year, but we did tie up the grape vines and cut away the burdocks. The pile of junk was of an unsellable quality, but at least we could pile it up in the farthest corner of our grounds, well out of sight. The cow-shed made a most satisfactory shack, with new flooring throughout and a neat rail and steps to give it a finished air. A tent, 14 by 14, which had been used at various times by the league, was set up under the trees as a resting place for the women.

The choice of cases whom the Day Camp might benefit was left to the doctor and the nurse. While the number was not always the same, we had an average of 10.5 cases. Three of these were children and these were chosen because of the specially bad home conditions. Elizabeth, the camp baby, was a little colored girl. Her mother told our nurse that she beat her unless she took her milk and eggs, which, while it sounded like a strenuous method, was better than not giving them to the child at all, as it happened in some of our cases. Elizabeth had nowhere to play but the dusty street, and she needed clean fresh air and the right sort of food to make her a well girl. She was the best humored baby, everybody in the camp played with her, and it was a funny sight to see her eyes roll with delight over some new toy, or dance with mischief. Anything new was her particular joy, and nothing pleased her quite so much as stiff, pink hair ribbons. William, aged eleven, was the oldest of seven children, his father was out of work and his mother tuberculous. While he had no distinct trouble, he was in a dangerous ænemic condition and needed special oversight and building up to save him from contracting the disease. Edwin, aged thirteen, was less fortunate than William, as his lungs were already slightly affected and he also had a tuberculous parent and lived in a poor home. These are three very typical cases to be helped by a camp such as ours. Left to play all summer in the streets, insufficiently and wrongly fed, they return to school in the fall to become centers of infection. My own experience has assured me that the best results can be obtained by helping just such children as we helped, and that a camp conducted solely for them would be the finest preventive work that any tuberculosis league could undertake.

All but one of the other patients were men out of work, or unable to work because of weakness. Left to themselves they would hang around streets and quite likely get what comfort they could afford at a corner saloon. One was ready to make away with himself when he came to us. He had no work and felt ill, and while the washing and cleaning done by his wife paid the rent, it did not provide proper food for the family and certainly

not the kind a sick man should have. With good food, milk, and eggs, and the feeling that he was not costing his family anything, he gained two pounds a week, and at the end of September left the camp to take up steady employment, asserting that it had saved his life.

Learning to know the men personally enables those in charge of the camp to get them work when the men could not obtain it for themselves. One man who was not able to do hard work got a number of half-day jobs, such as cleaning up lawns, gardens, etc., and even these small sums put him on his feet again and made him feel that he was not a hopeless drag on his family. Still another man had daughters who were working, but he needed rest and care after an acute illness. Our one woman had been in the hospital with a complication of troubles and was not accepted as a patient at the State Sanatorium for Tuberculosis until a summer at the camp had so improved her physical condition that she went off to try a winter out of doors with every chance of complete restoration to health.

The education that the patients receive as to the communicable nature of their disease is the chief importance of the camp to the public. While the nurse in charge kept a close surveillance over everything, the idea was always to make the patients themselves feel the importance of cleanliness and care so that they learned to take a pride in the reputation of the camp. Everything obnoxious was burned twice a day, and the patients were required to wash their hands before meals.

In view of the fact that there was probably no public place in the city where the danger of contracting tuberculosis was less, it was amazing how much objection there was to the camp's existence. The town authorities, influenced by residents of the locality, voted to suppress it, in spite of the repeated assertions of the Board of Health that there was nothing unsanitary about it. Finally the opposition culminated in legal proceedings, and suit was brought under a town ordinance directed against the maintenance of public nuisances. When the vice-chancellor of the State had heard both sides of the question, he gave a decision in favor of the camp, saying there was not sufficient reason for giving an injunction to close such a place.

With the public eye so continuously on the camp, it was more necessary than ever to keep everything in the best possible condition. The actual management was done by the nurse, who also attended to the housekeeping, and there was a woman to cook and serve the food. So much of the fund we had raised was sunk in our plant that it was necessary to be very economical in the matter of food, but it would have been false economy not to have fed our patients well. We decided to cut down the large allowance of milk and eggs usually given tuberculous patients and concentrated our efforts upon one good meal

given at noon. We gave a lunch morning and afternoon of an egg and a glass of milk for each patient and we served milk at the mid-day dinner, but we concluded that it was better to use our extra milk and eggs to enrich the cooking. Dinner consisted of a meat, at least two vegetables, bread, butter, milk, and dessert, the last usually a milk and egg pudding, varied enough to suite all tastes. Occasionally baked beans were given instead of meat and then a stock soup was served. Apples from our own trees enabled us to give apple sauce with the afternoon lunch, as well as help out our desserts. The efficiency test of this menu was that ten out of the fourteen patients gained in weight. One man gained fifteen, another twelve, and another ten pounds in the ten weeks.

papers they so frequently brought. On a pleasant summer afternoon, under the shade of the big trees, the camp had a most attractive appearance, and it used to be said when we were teased about the dilapidated air of the old barn that we did not care as we had a good precedent for living in a stable.

When the time for closing came, late in October—the premises were not practicable for cold weather—we found that we had been able to maintain the camp for an average daily attendance of 10.5 persons, not including the nurse and the cook, at a cost of 33.8 cents per patient per day. This amount included fuel and ice and the cost of a woman to prepare and cook the food.

These results seem well worth considering, not only on account of the physical benefit



ORANGE, N. J. DAY CAMP

The camp was opened in the morning at nine o'clock, and the patients helped the nurse bring out the cots and set up the canvas covered lounging chairs. After a little rest the temperature and pulse of each patient was taken and recorded in the nurse's book and at ten o'clock the morning lunch of milk and eggs was served. The doctor usually made his daily visit at twelve, and dinner was at one. After dinner there was always an hour's rest during which the patients slept or read quietly, and the remainder of the afternoon was devoted to playing games. At four-thirty there was another lunch, and at five-thirty the camp closed for the day. Several men returned after supper at their own homes to spend the night in the shack.

The care of the camp grounds, such as cutting and raking the grass, was all done by the patients. Visitors were always welcome, and so were the gifts of magazines and news-

to the individual patient, and the indirect benefit to the community of the hygienic education received by him, but as showing the place and importance of a Day Camp.

It is limited inasmuch as it is a temporary and not a permanent institution, but the need it meets is a temporary need. It is pre-eminently fitted to tide over some crisis in the affairs social or physical or both in a family life, and the help it gives, if given at the right time, makes permanent institutional or charitable aid unnecessary, for it often means that a man is built up so that he can continue working for his family, and a child carried over a critical period in his life that without care would mean disease and early death.

The right help at the right time is a good past measuring, and this good is what a Day Camp achieves.

DUST AND DISEASE

BY W. L. MOSS, M. D.,

JOHNS HOPKINS HOSPITAL, BALTIMORE, MD.

On the coast of China is found a sea-weed from which the natives prepare a sort of jelly called agar-agar, which serves them as an article of diet.

The jelly prepared from agar-agar is transparent and of a pale yellowish-green color, very much like our gelatin, but it solidifies into a firmer mass. This substance finds little if any use in this country as an article of diet but is used in all bacteriological laboratories as a medium on which to cultivate bacteria.

The following is a common experiment used to demonstrate the presence of micro-organisms, or germs, as they are ordinarily called, in the air. Some agar-agar, suitably prepared, is poured into a shallow round dish about four inches in diameter, closed with a glass cover, the whole sterilized by heat to kill any germs that may be present, and allowed to solidify. Now the dish is placed in an open window and the cover removed for one minute, five minutes, or ten minutes, and then replaced, and the covered dish put in an incubator for twenty-four hours. If at the end of this time it be examined the surface of the agar-agar will be found covered with numerous small blotches of many different colors usually more or less round in outline, varying from a pin-head in size up to a quarter or even half-inch in diameter. Some may be a brilliant and beautiful red, others various shades of yellow or brown, some perhaps green or blue, but most of them cream or pearly grey. Now if one removes a tiny mass from one of these blotches and examines it under the microscope it is found to consist of germs, or bacteria, as they are called in the laboratory. The blotches on the surface of the agar-agar are colonies of bacteria which are multiplying and growing at a tremendous rate. Wherever a living germ has fallen on the surface of the agar-agar during the few minutes that the cover was removed from the dish on the previous day, a colony of bacteria has grown, and from each germ thousands of descendants have arisen. If one examines the germs from

different colonies under a powerful microscope some of them will appear as tiny round dots, others as small rod-shaped bodies, some straight, some curved, some capable of swimming actively about in fluid, others not endowed with the power of independent motion.

Now how do we know that these germs have gotten on the surface of the agar-agar during the few minutes that the cover of the dish was removed? May they not have been already in the agar-agar and just waiting for a chance to develop? When one states anything in the laboratory he must be able to prove it. To prove that the germs have gotten into the dish while the cover was off it is only necessary to prepare a second dish of agar-agar exactly as we did the first and place it in the window beside the first without removing the cover and then place it in the incubator for twenty-four hours, as we did the first. If we do this we will find that the surface of the agar-agar in the second dish does not develop the interesting blotches which appeared on the first dish; and examine it microscopically as carefully as you will, you will find no germs.

To prove that the germs get into the first dish with the dust is not quite so simple but still it may be done. In the first place, if one takes a series of dishes and exposes them for varying lengths of time under the same conditions, the dish which is left uncovered the longest will contain the greatest number of colonies. Again if one takes a series of dishes and exposes all for an equal length of time, some on a dusty street, others at an open window on the top floor of a tall building, and others in a closed room from which dust has been excluded as much as possible, it will be found that those dishes exposed to the greatest amount of dust will contain the greatest number of germ colonies; but to make this proof more conclusive, we must expose some dishes to air which has been filtered through cotton to remove all dust. When this is done it will be found that no colonies develop on the surface of the agar-agar contained in these dishes.

If dust contains germs and germs cause disease, how can any one remain healthy? We must not develop an undue fear of germs, for they are not all capable of producing disease. Only a comparatively small number of the many varieties of germs are able to cause disease and many of the disease-producing germs can do so only under special conditions.

Many kinds of germs are quite useful to mankind; indeed without them we could not long live, hence the importance of studying them and knowing which are our friends and which our enemies. It was just stated that many of the disease-producing germs, our enemies, can produce disease only under certain conditions, and if we are to keep healthy it behooves us to know what these conditions are. It is easy for germs to set up disease in an individual who is run down from overwork, worry, undernourishment, lack of fresh air and exercise, over-indulgence in alcohol, insufficient sleep and irregular hours. It is an old saying that to avoid disease one must keep well. A second factor is the number and strength of the invading germs.

There are three lines of defense against germ-produced diseases. First: Keep the germs from gaining access to our bodies. This we can do fairly successfully in the case of some like the germs of typhoid fever which are taken in either with our food or drink. If one is careful to drink only water which has been boiled, and milk only from a dairy where the necessary precautions are taken to prevent contamination and which subsequently is properly handled, the few cases of typhoid fever which arise from eating uncooked vegetables that have been contaminated may almost be disregarded.

Second: There are certain diseases whose germs we do not know or which we cannot keep from gaining access to our bodies at one time or another, which, however, we can protect ourselves against, as in the case of small-pox, by vaccination.

Third: There are diseases whose germs are either known or unknown, and which we can neither prevent gaining access to our bodies nor protect ourselves against by vaccination. In this extremity we have to depend on the natural resistance of the body. Now this resistance can be kept high by all the measures which build up and make strong the body, such as a proper amount of outdoor exercise,

plain nourishing food taken at regular hours, a sufficient amount of sleep with windows open, and regular work. The man, woman, or child who has a strong healthy body will successfully resist an exposure to disease germs to which another individual, with weakened body and lowered resistance, will succumb.

So much for general considerations. Now to come back to our subject, "Dust and Disease." We have pointed out that dust is a carrier of germs and when one considers the exceedingly minute size of these tiny organisms, it is easy to understand that the minutest speck of dust may be the carrier of many germs. A fortunate fact it is for us, that not all of these germs are harmful.

It is a matter of common experience with many people that going out on the street on a very dusty day or rummaging through a dusty garret will cause a "cold in the head." It is highly probable that in many cases this is due to germs that are breathed in with the dust and lodge on the mucous membrane of the nose, or are taken down into the lungs and there cause inflammation.

Notable among the dust-borne disease is tuberculosis, or as it is more commonly called, consumption. The germ causing this disease is thrown off in enormous numbers in the sputum of advanced cases of tuberculosis, and if such patients spit carelessly about the house or on the streets, the sputum dries, becomes pulverized, and as dust carrying the germs may be breathed into the lungs of healthy persons and there set up the disease. In the same way the germs causing diphtheria and a number of other diseases may be distributed.

In the beginning of this paper agar-agar was referred to as an article of diet and as a culture medium upon which germs might grow and multiply. Similarly there are a number of other substances which are used as food and in which or upon which germs may flourish. Commonest of these is milk. Introduce a single typhoid fever germ into a pitcher of milk and allow it to stand over night in a warm place and millions of typhoid germs will develop. A single typhoid germ if swallowed would scarcely cause typhoid fever, but drink a glass of milk from a pitcher into which a single typhoid germ has fallen a few hours previously and you will almost certainly develop typhoid fever. Now it is perfectly possible for typhoid germs, carried on par-

ticles of dust, to fall into milk if the milk is left standing uncovered, and think of the opportunity for dust-carried germs to be deposited on vegetables, meats, etc., exposed for sale in our open markets. Fortunately most germs are killed by heat and most of our food is cooked before it is eaten, hence most of the germs which may have been deposited on it are killed; but we cannot altogether disregard vegetables like celery, radishes, and lettuce which are eaten raw, and fruit like apples which may be eaten not only raw but unpared.

Thus we see that dust may play an important part in the production of disease, by acting as the carrier for disease germs. It plays another part, however, quite independent of its rôle as carrier, which is worth our consideration. Dust may be of vegetable, mineral or animal origin. Anything which is dried and reduced to a sufficiently fine powder is capable of forming dust. Now the individual particles of dust arising from pulverized stone are just as hard as the original stone and have just as sharp angles and rough edges; and these tiny missiles, lodging on the delicate mucous membrane of the nose, throat and lungs, may do considerable damage by their irritation and the mucous membrane so damaged is more easily attacked by disease germs than is the uninjured membrane. Indeed, it has been found that some germs are able to produce disease only when they gain entrance to the body along with particles of dirt.

That all of what has been said regarding the relationship between dust and disease is not mere theory can be shown by reference to the mortality tables for the various trades.

The following is taken from the Mortality Statistics, Department of Commerce and Labor, United States government, 1907: "The highest death rate from tuberculosis of the lungs for 100,000 persons of specified occupation in the population in 1900 was that of marble and stone cutters (540.5), followed by that of cigarmakers and tobacco workers (476.9), compositors, printers, and pressmen (435.9), servants (430.3), and bookkeepers, clerks and copyists (398). Laborers (not agricultural) showed a high rate (370.7), but farmers, planters, and farm laborers had one of the lowest rates for males in the list (111.7)."

In the list we see that the death rate from tuberculosis is high in proportion as the occupation is associated with dust and confinement indoors, and low in proportion as the occupation is free from dust and is associated with work in the open air.

Having shown the cause our work is but half done unless we point out the cure.

Two lines of defense against dust will suggest themselves: First: prevent the dust from becoming contaminated with disease germs; second: prevent the contaminated dust from gaining admission to our bodies.

It does not require an expert to tell you that neither is completely possible. We readily agree that it is impossible to prevent disease germs from getting into the dust and equally impossible to completely exclude the dust from our bodies, but we can do much to lessen the occurrence of both.

To show how this may be done, let us consider a disease like tuberculosis in which the germs are thrown off from the body principally in the sputum. If every person suffering from this disease would refrain from spitting on the streets or about the house and would spit only into a suitable sputum cup and destroy, by burning, all of his sputum, the contamination of the dust by this most dangerous germ would practically cease and a long step would have been taken toward stamping out this dread disease.

The application of similar rules to other disease, that is, destroying the germs as they leave the body of the patient, would do much toward carrying out the first line of defense laid down; namely, preventing the dust from becoming contaminated with disease germs.

Numerous ways suggest themselves by which we may more or less effectively carry out the second line of defense, preventing the contaminated dust from gaining admission to our bodies.

The city should keep its streets well sprinkled in dry weather and the streets should never be swept without first being well sprinkled. Individuals should see that the floors of their houses, if bare, are sprinkled with damp sawdust before being swept. If the floors are carpeted, bits of newspaper torn up and dampened will, if scattered over the floor before sweeping, do much to prevent dust. To remove dust from furniture, etc., the damp cloth should replace the old-fashioned feather duster. Wire screens placed in the windows and doors will not only keep out flies, mosquitoes, and other insects which frequently are carriers of disease, but will do much to lessen the dust nuisance. A caution may be necessary here. In our enthusiasm to exclude the dust one should not fall into the error of excluding the fresh air. Harmful as dust may be, an insufficient supply of fresh air, day and night, would almost surely result in more harm. All food should be carefully protected from dust as well as from flies and other insects.

Disease is an enemy so vigilant, lying in ambush on all sides, and appearing to attack us under so many disguises, that we must neglect no weapon of defence. As far as practicable every avenue of approach must be guarded. Where we have certain and safe defences like vaccination against smallpox it would be folly not to embrace them. Where we can only reduce the danger, as in fighting the dust evil, we should not neglect these means, but in addition to all of these precautions let us bring strong, healthy bodies to the fight against disease.

Journal of the Outdoor Life

OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS; THE KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION; THE PENNSYLVANIA SOCIETY FOR THE PREVENTION OF TUBERCULOSIS; THE NEW HAVEN COUNTY ANTI-TUBERCULOSIS ASSOCIATION; SARANAC LAKE SOCIETY FOR THE CONTROL OF TUBERCULOSIS; PROVIDENCE, R. I., LEAGUE FOR SUPPRESSION OF TUBERCULOSIS; ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS OF THE DISTRICT OF COLUMBIA, JACKSONVILLE, ILLINOIS, ANTI-TUBERCULOSIS SOCIETY.

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The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

THE TUBERCULOUS PRISONER

For a number of years some exceedingly valuable anti-tuberculosis work has been going forward almost entirely unnoticed even by many of those who have been active in the campaign. Little attention has been given to the rights of those who have injured society to have their health safeguarded, and hardly more heed has been taken to the danger to society from convicts returned to it as active spreaders of infection. At last, however, the tide is turned the other way, almost entirely through the efforts of a very few men. Dr. Julius B. Ransom first instituted proper outdoor care for tuberculous prisoners in Sing Sing Prison some twenty years ago and through his efforts there is now practiced in the prison administration of New York State a definite policy with

tuberculous prisoners which gives most of them an opportunity for recovery and lifts from them the former dull despair of practically certain death.

Prison reform is one of the most vital needs of the present time and public attention has been directed to it in no uncertain terms, until now there is a strong demand that the prisons cease to be places for further corrupting those committed to them. The idea of punishment is an abandoned tenet of criminology and in its place has come the idea of reform and character building.

It is equally important that our prisons cease to be hot-beds of physical disease and that their inmates be returned to society as improved in physical health as they should be bettered mentally and morally by their incarceration.

WOMEN'S CLUBS VERSUS TUBERCULOSIS

The biennial convention of the General Federation of Women's Clubs in Cincinnati from the eleventh to the eighteenth of this month marks the end of the fourth year of anti-tuberculosis work by the Health Department of the Federation. On another page of this issue Mrs. Rufus P. Williams, Chairman of the Health Department, has indicated something of the remarkable success which has attended this endeavor to convert the organized women of the country, over eight hundred thousand strong, into an effective part of the great anti-tuberculosis army.

There are many phases of tuberculosis education and prevention which are particularly suited to women and in which women can probably ultimately exert greater influence than men. This is especially true of preventive work in the home, among school children, and in the organization of fresh air schools. The establishment of tuberculosis classes, of day camps for the treatment of favorable cases, and of local hospitals and dispensaries, provides a very definite and concrete outlet for woman's inherent instinct for social service.

Realizing the prominent place which women are now taking in the campaign,

we are glad to announce that we have recently completed arrangements for the publication from time to time during the year of a number of articles by recognized authorities on the various subjects to which the club women will devote special attention. The first of these articles, *The Family Physician and His Tuberculous Patient*, by Dr. Edward O. Otis, appears in this issue. Others to follow are: *The Value of a Tuberculosis Class to the Community*, by Dr. Richard C. Cabot; *Tuberculosis Classes*, by Dr. John B. Hawes, 2d; and *How to Double Endurance by Diet*, by Professor Irving Fisher. In addition to these articles we shall present others, full of suggestion and of practical value, for the women who are really determined to accomplish something for their own communities.

The ingenuity, the persistence, and, as Mrs. Williams says, the native diplomacy of women, coupled with the fact that nearly a million of them in the United States alone are welded into a coherent body which is being systematically directed toward a specific end, constitutes one of the most encouraging present indications of the campaign.

DATE OF THE INTERNATIONAL CONGRESS

Word has recently reached this country that the date for the Seventh International Congress on Tuberculosis, to be held in Rome in 1911, has been set for the last two weeks in April. From the standpoint of those in America who desire to attend the Congress this is unfortunate. Physicians who are connected with medical schools and other educational institutions are at this par-

ticular time unable to leave their work, while those in private practice and laymen generally, will find it very difficult in the Spring months to arrange for a prolonged absence.

In view of these conditions we are forced to express our regret at the date which has been chosen and venture the hope that it may later be changed to some time in the early Autumn.

Little Lights

BY STEPHEN CHALMERS

CONSOLATION.

To wake at morn
And hear the little laugh
Of the lake-wind in the trees;
To watch at dawn
The rising sunbeam kiss
The mist-crowned, towering peaks
And glide down to the plains—

Ah, that is Life!
Not this—

To wake at morn
And hear the swelling roar
Of Man, Beast and Machine,
Toiling in murky air
And a city's sweat!

At noon to dream
Where Nature's bowers are hid
Beneath an arch
Of twined and intersticing vines,
While on the air
Quivers the chanting of the sighing
woods

And the songs of mating birds—
Ah, that is Life!

Not this—

At noon to pause
And lay aside the pen for one brief
hour;
Then to return, as I did yesterday,
Will do to-morrow and on all to-mor-
rows—
Oh, Fool—Machine—and Slave!

Again, at dusk,
To watch the sun's last ray
Fade from the sky;
To feel Earth's grand transition
From Day to Night—
That moment when the world
Pauses and knows itself!
The Angelus chimes
And echoes 'round the Earth
In changing strain and measure—
Here the Muezzin's call,
There's a child's lullaby,

And now a poor serf's prayer—
The whole—Earth's Evensong.
To hear that is to live!

Not this—
To hear the thunderous roar
Of thousands, pale and tired, dead in
soul,
Crushing with merciless haste toward
home.

Home?
Past ere the sweet of home has touched
the sense!

To toil that we may sleep
That better we may toil;
To toil that we may eat,
That better we may toil—
The roundelay of Life.
Ay, that is Life; but still—
But still we dream!

THE MODERN KNIGHT.

Straight as his lance, his plan—
"He who would conquer, can!"—
Carved on his sword, the man
Enters the field!

Evils that taught defense;
Folly's stern consequence;
Sorrow's calm recompense—
Hang on his shield.

Heart-whole and strong of arm;
Conscience defying harm;
"Right" for his deathless charm,
Winds he his horn!

Death come with victory?
What then? At close of day,
Wears he the crown of bay,
After the thorn!

DISTRICT OF COLUMBIA ASSOCIATION

EDITED BY RUTH RIZER, EXECUTIVE SECRETARY

TUBERCULOSIS DISPENSARY AND CLINICS IN WASHINGTON, D. C.

The tuberculosis Dispensary, which is located at 923 H Street, N. W., had its beginning five years ago in the southwest office of the Associated Charities. Later it was moved to a more central location at 926 F Street, N. W. The faithful doctors and nurse aiding the work in those days can well remember the cramped quarters, dark rooms, and inadequate apparatus which it was then impossible to change. As the interest in the tuberculosis work grew, and more money was contributed, more satisfactory quarters were provided for the dispensary. In 1907 it was moved to the basement of 923 H. Street, N. W., and a year later it was changed to the second floor of the same building. The two large, light, airy rooms here provided were well suited to the requirements of the dispensary, and it was hoped that they might be used for it indefinitely. Unfortunately, lack of funds this year has necessitated our renting these rooms and moving back to the basement. Here six clinics are held weekly: Monday, Tuesday and Thursday from 2 to 3 P. M., Wednesday from 10 to 11 A. M., Friday night from 8 to 9.30, and Saturday (for children only) from 1.30 to 3 P. M.

In order that co-operation in the tuberculosis work might be carried on among the different hospitals throughout the city,

at the suggestion of this Association, special tuberculosis clinics were established during 1908 in four hospitals. These included Homeopathic, Georgetown, Casualty and Emergency Hospitals. During the past winter Children's and Freedman's Hospitals have also established special clinics.

Two nurses, supported conjointly by the Association for the Prevention of Tuberculosis and the Instructive Visiting Nurse Society, devote their time exclusively to the tuberculosis work. They attend the special tuberculosis clinics and visit homes of patients to advise or aid them in every possible way.

Once a month a joint meeting of all physicians attending the tuberculosis clinics and of the tuberculosis nurses is held. This Committee on Dispensaries, as it is called, discusses plans for aiding the dispensary work throughout the city. Co-operation is very necessary among organizations engaged in similar work, and it is felt that already much has been done in Washington toward securing concerted action among the forces at work.

In accordance with a request made by the representatives gathered at the recent Massachusetts Tuberculosis Conference, a bill has been introduced in the Massachusetts legislature which provides for a special commission to study and suggest a plan of coordination between municipal and state hospitals.

NOTES AND NEWS

INTERNATIONAL CONFERENCE ON TUBERCULOSIS

As already announced, the ninth international conference on tuberculosis of the International Anti-Tuberculosis Association is to be held in Brussels, October 5th to 8th. Members of the National Association for the Study and Prevention of Tuberculosis who are planning to attend the Conference will confer a

favor by sending their names to the Executive Secretary of the National Association at 105 East 22nd street, New York City.

RHODE ISLAND TUBERCULOSIS CONFERENCE

The control of tuberculosis through developing efficient local work combined with proper State and municipal responsibility was

the keynote of the Rhode Island Tuberculosis Conference held at Brown University on Thursday, April 21st.

The conference was held in three sessions, the morning being given over to the subject, "Plan for an Aggressive Local Campaign Against Tuberculosis," the afternoon to "The Tuberculosis Problem and the Relation it Bears to the Work of the Social Agencies in the Community," and the evening to "State and Municipal Responsibility in the Control of Tuberculosis." The attendance at all of the sessions was large and representative not only of every section of the State but also of a variety of social and civic interests. Governor Aram J. Pothier presided over the afternoon session, Lieutenant-Governor Zenas W. Bliss over the evening session, and Hon. Roswell B. Burchard, speaker of the House of Representatives, over the morning session.

The discussion with regard to a plan for an aggressive campaign against tuberculosis brought out the points that such movements must be local, continuous, and that they should tend to stir the community to its responsibility in the prevention of tuberculosis.

The paper on the Tuberculosis Problem and the Relation it Bears to the Work of the Social Agencies in the Community, by G. A. Weber, General Secretary of the Octavia Hill Association of Philadelphia, emphasized the necessity for better home provisions in the rearing of children, and the general life of the family. The paper was discussed from the following different points of view: housing, charities, hospitals, physicians, nursing, schools, churches and women's clubs.

In considering the subject "State and Municipal Responsibility in the Control of Tuberculosis," it was pointed out that the various agencies in the State expended a total of \$127,696.57 last year in tuberculosis work. It was shown that there were at present hospital beds for the care of one hundred and twenty advanced cases in Rhode Island, one-half of which were in the State institutions and one hundred and twenty-four beds for sanatorium cases; that on an accepted basis of computation, Rhode Island should have not less than three times its present number of sanatorium beds and seven times its present number of hospital beds for advanced cases. It should also provide for the home care of returned sanatorium cases; for the development of an adequate State dis-

pensary system; for the cleaning and disinfection of homes and rooms formerly occupied by consumptives; for condemning unsanitary houses for repair or removal; for the control of the dust nuisance; for developing education work in the suppression of tuberculosis on a larger scale; for an adequate system of health inspection in public schools and factories, and for the control of the milk supply. Dr. Chapin of the Providence Board of Health explained that as soon as the work against tuberculosis was clearly understood, it would become more and more a function of the State and municipal governments. He said it was not possible to lay down definite and distinct lines of work at present, but that a start in this direction was being made. He said the municipality should provide for the free examination of sputum, for the registration of cases of the disease, for the cleansing and disinfection of premises formerly occupied by consumptives, for hospital facilities for advanced cases, for day camps, fresh air schools, and for the distribution of literature.

ANTI-SPITTING LAWS BEING ENFORCED

As a direct result of an investigation made recently by the National Association for the Study and Prevention of Tuberculosis, in which it was shown that hardly one-eighth of the cities of the United States enforced the ordinance forbidding promiscuous spitting, a revival of interest in this reform has been manifest in many parts of the country. At a recent mass meeting in Rochester the following resolution was unanimously adopted:

"Resolved, That we, the citizens of Rochester in mass meeting assembled, do hereby respectfully urge His Honor, Mayor Edgerton, Commissioner of Public Safety Owen and Chief of Police Quigley, to carry into effect the request of the Rochester Public Health Association, that two officers be immediately assigned to the duty of strictly enforcing the ordinance which prohibits the promiscuous spitting in public places."

In Syracuse, N. Y., similar steps have been taken. The Chicago police have secured the coöperation of a large number of social and civic bodies for the purpose of stopping spitting in public. Reform movements are being pushed in Louisville, New Orleans, San Francisco, and a large number of other cities.

OPENING OUTDOOR SCHOOLS ..

Unusual interest in the open air school movement is being shown at the present time in various parts of the country. At Cambridge, Mass., a school for 25 pupils is about to be opened. Steps have been taken for the establishment of an open air class in one of the schools of Montclair, N. J. A committee in Buffalo is arranging for an outdoor school in that city. In New York an open air classroom for 20 children has just been inaugurated, and 20 similar rooms will be opened next fall. Part of the funds for an outdoor school for St. Paul were raised by the sale of Christmas stamps, and classes will probably be held at a day camp this summer. The Pennsylvania Society for the Prevention of Tuberculosis has submitted to the Board of Education of Philadelphia a report asking for the establishment of open air schools and classrooms. In Minneapolis, Newark, N. J., and Elizabeth, N. J., similar petitions have been presented. Detroit, Columbus, O., and Cincinnati have for some time been discussing this question.

Meanwhile open air schools are in operation in Boston, Brookline, Mass., Chicago, Providence, Pittsburg, New York, Rochester and Hartford, Conn.

REORGANIZE ILLINOIS STATE ASSOCIATION

As the result of a conference held on April 16th in Chicago the Illinois State Association for the Prevention of Tuberculosis will be revived and a thorough-going State campaign will be started. The conference was called at the instance of the Chicago Tuberculosis Institute to consider the disposition of a fund of \$1,200 now in the hands of the institute, collected from the sale of Christmas stamps throughout the State, outside of cities where local associations are already in existence. The conference decided to reorganize the Illinois State Association under the existing charter, making some arrangement with the Chicago Tuberculosis Institute in regard to sharing offices and executive expenses, and for coöperation in policy. This plan was considered preferable to organizing a new society or to expanding the work of the Chicago Tuberculosis Institute to include the State. The Illinois State Association for the Prevention of Tuberculosis was organized in 1905. It has

done no active work for more than three years. The last secretary of the association was Ernest P. Bicknell, now director of the American Red Cross.

A SOUTHWESTERN TUBERCULOSIS CONFERENCE

A call for a meeting to organize a Southwestern Conference on Tuberculosis has been sent out by a committee of the Missouri Association for the Relief and Control of Tuberculosis. The meeting will be held in St. Louis on May 23, immediately following the National Conference of Charities and Corrections, and just preceding the meeting of the American Medical Association. It is planned to bring together in an annual conference the tuberculosis workers of Missouri, Kansas, Colorado, Nevada, California, Arizona, New Mexico, Texas, Louisiana, Arkansas and Oklahoma, especially those who, because of distance and expense, cannot attend meetings of the National Association for the Study and Prevention of Tuberculosis. The conference proposes to work in close coöperation with the National Association for the Study and Prevention of Tuberculosis, but to devote its energies especially to the study and prevention of those tuberculosis problems which are peculiar to the southwest, such as, for instance, the large annual influx of indigent consumptives.

PENNSYLVANIA'S THREE STATE SANATORIUMS

Mrs. B. F. Jones of Pittsburg has donated to the State of Pennsylvania a tract of land and a cottage valued at \$18,000 adjoining the site recently given to the State at Cresson by Andrew Carnegie. The cottage will be fitted up at once for the reception of 20 patients and will be the nucleus of a large Western State Sanatorium. Health Commissioner Dixon has also purchased a tract in Berks County, near Reading, upon which will be erected the Eastern State Sanatorium. When these two new institutions are completed they will give to the State of Pennsylvania a capacity for nearly 2,000 tuberculosis cases.

ROCK ISLAND VOTES FOR SANATORIUM

The second election in Illinois by a municipality to determine whether a tax up to one

mill should be levied to provide for the erection of a local sanatorium was held in Rock Island on April 16, with favorable result. A campaign similar to the one carried on last year in Chicago was conducted. Every voter was appealed to to vote "yes" on the "Little Ballot." The vote stood 2,999 for, and 1,199 against the tax. The full levy of one mill in Rock Island will give about \$5,000 a year. It is expected to secure enough additional from private contributions to insure the immediate establishment of a sanatorium.

NEW JERSEY'S SANATORIUM LAW

The New Jersey Legislature, in its closing session, passed a law regulating the establishment of tuberculosis sanatoria and hospitals. The bill was patterned in some respects after a similar law enacted in New York last year. The New Jersey law provides that, if objections arise on the part of property owners to the establishment of a tuberculosis sanatorium, the State Board of Health shall conduct a hearing and shall decide whether the institution should be built or not. This body is the only and last court, its decision in the matter being final.

GIVES FIRST SANATORIUM TO WASHINGTON

Horace C. Henry of Seattle has given to the King County Anti-Tuberculosis Association, with headquarters at Seattle, 40 acres of land and has promised to build on it a sanatorium costing \$25,000 or \$30,000. The gift of Mr. Henry is without conditions. He will erect the sanatorium and turn it over to the association as a memorial to his son who recently died of tuberculosis. The tract is five miles from the city and is situated on a hill overlooking Puget Sound. This will be the first sanatorium for tuberculosis to be erected in the State of Washington.

TUBERCULOSIS DON'T CARD

The National Association for the Study and Prevention of Tuberculosis has prepared a simple card giving instructions and advice both to the sick and the well, attractively printed in four pages with the double red cross on the first page. The card was adapted from one in use by the New York City Health

Department. Arrangements have been made with a New York printer whereby these cards may be ordered at cost price through the National Association for \$1.88 per thousand in any language. Translations of this card have been secured in German, Swedish, Finnish, Yiddish, Spanish, Bohemian, Polish, Italian, French and Armenian. A Greek translation has been provided for and other languages will be added as the demand for them arises. The card is so prepared that local data, such as the name of the society or a list of dispensaries, can be imprinted on the first and fourth pages, or if this is not desired, the card can be left blank on these pages.

EDUCATIONAL WORK IN ST. LOUIS

The annual report of the St. Louis Tuberculosis Commission shows that 1,108,700 pieces of literature were distributed during 1909. This includes bulletins, papers, pamphlets, circulars, cards, signs, posters and dodgers. Sixty open air meetings were held during the summer months and 135 indoor lectures were given. The Commission now has an exhibit which is being shown in various parts of the city. A woman lecturer has been employed to talk to women and children in schools, churches and factories. The Commission is planning a series of meetings at the moving picture theatres of the city.

THE NATIONAL'S EXHIBITS

Exhibition Number 2 of the National Association for the Study and Prevention of Tuberculosis opened in Little Rock, Ark., on May 2, a State-wide campaign for Arkansas. A similar movement has just closed in Oklahoma, as a result of which a State and several local associations were formed. The exhibit will be shown in the principal cities of Arkansas. The American Tuberculosis Exhibit of the National Association for the Study and Prevention of Tuberculosis is at Raleigh, N. C.

SOME NEW TUBERCULOSIS MAGAZINES

Several State Associations have recently begun to publish State magazines or journals. The Pennsylvania Society for the Prevention of Tuberculosis has revived its "Fresh Air

Magazine," which was suspended over a year ago. The first issue of "The Crusader," the monthly publication of the Wisconsin Anti-Tuberculosis Association, appeared in April. The Colorado Association for the Prevention and Control of Tuberculosis has just issued the first number of a new magazine entitled "Tuberculosis." Similar publications are issued by the California State Association, the St. Louis Municipal Commission, the Pittsburgh Tuberculosis League, and several other societies.

DR. FOSTER'S SUCCESSOR

Dr. George H. Knight, head of the Connecticut School for Imbeciles at Lakeville, has been chosen chairman of the State Tuberculosis Commission to fill the place left vacant by the death of Dr. J. P. C. Foster. Dr. Knight will have charge of the excellent work begun by Dr. Foster in the erection of three State sanatoria in different counties of the State. The sanatorium at Meriden is now in use and the ones at Huntington and Newington are rapidly nearing completion.

Dr. Foster's death occurred on April 1, after a short illness from pneumonia. He was a director and former Vice-President of the National Association for the Study and Prevention of Tuberculosis and was for years the most active figure in the State tuberculosis propaganda in Connecticut. He was 65 years old and was a graduate of Yale University.

RED CROSS STAMP DESIGNS

A circular calling for designs for the 1910 Red Cross Christmas Stamp has been issued from the Washington headquarters. Three cash prizes of \$100, \$50 and \$25 will be paid for the best designs, and ten other designs will be paid for at the rate of \$10 each. The conditions of the competition follow:

Any person may submit not to exceed three designs.

The design must be shown in not more than three applied colors, preferably two.

The design shall contain the words "American Red Cross, 1910, Merry Christmas, Happy New Year," and the Red Cross emblem must show prominently.

The name and address of the artist must be written on the back of the design to facilitate its return after the close of the competition.

The competition will close at noon, May 15. No designs will be returned unless specifically requested.

The designs shall be addressed to Charles L. Magee, secretary American Red Cross, Washington, D. C.

MAY OUST TUBERCULOUS EMPLOYEE

The Attorney-General of Ohio has ruled that local health officers have the power to compel a tuberculous person to cease working in factories, where it can be proven that by his habits he is a menace to the health of his fellow employees. The question was submitted to the Attorney-General by Dr. C. O. Probst, State Health Officer, on a complaint from a glove factory to the effect that a certain cutter who was in an advanced stage of tuberculosis was endangering the lives of some female employees working near him.

GERMS ARE DRAMATIZED

"Germland" is the gruesome title of a little drama recently produced by a group of women students in the University of Wisconsin. The play was given under the supervision and direction of Dr. M. P. Ravenel and Dr. W. D. Frost of the Department of Bacteriology of the University.

The characters, dressed in characteristic costumes, are Mike Robe, a rowdy, Newmonia, journalist, poet, etc.; Lanceolatus, chauffeur; Tacita Tetanus messenger; Bessie Bacillus, stenographer; and Teddy, an up-to-date Tubercle. The action of the play centers about the war of the germs on humanity, the love of Teddy Tubercle for Bessie Bacillus, and the interest these characters have in dirt and filth.

TUBERCULOSIS IN NEW BRUNSWICK

An exhaustive report with regard to tuberculosis in the province of New Brunswick was recently presented to the legislature by a special commission appointed to investigate the subject. The report recommends an educational campaign; the establishment of compulsory registration, inspection and disinfection for tuberculosis cases; a permanent traveling exhibit; the appointment of visiting nurses; the stimulation of local health boards;

the teaching of tuberculosis prevention in the public schools; and the establishment of adequate sanatorium and hospital provision.

BRITISH COLUMBIA'S REPORT

The Third Annual Report of the Anti-Tuberculosis Society of British Columbia has just been issued and gives interesting details concerning the Tranquile Sanatorium at Kamloops and the general field work done in the province. Out of 97 patients treated, 22 per cent were free, while of the remainder 46 per cent paid \$7.00 and under. The average cost per patient per day was \$2.00, of which sum the government's grant paid 60 cents, patient's payments, 88 cents, and public subscriptions, 52 cents. An interesting feature of the medical superintendent's report is that of the 66 patients admitted during the year, only 19 were females, and 47 were males.

NOTES FROM THE FIELD

In the Ninth Annual Report of the prison commissioners of Massachusetts is contained the second annual report of the Prison Camp at West Rutland. The report states that in 2 years 125 patients have been admitted, 96 of them in the last year.


On May 1st the first class graduates in the three months' post graduate course on tuberculosis nursing at the Ohio State Sanatorium. The class was composed of Miss Margaret Trojan, Huron Street Hospital, Cleveland, Ohio; Miss Mary Louthan, Maryland City Hospital; and Miss Ida Bogner, Ann Arbor Hospital, Ann Arbor, Michigan.

A gift of \$5,000 has been made to the Evansville Anti-Tuberculosis Society on condition that the membership be increased to 5,000. The gift has been accepted and daily additions to the membership list are being made.

A special tuberculosis edition of the Salem, Mass., *News* will be issued and sold for the benefit of the local tuberculosis camp. The papers will be sold by girls who will collect funds in sealed boxes.

A report from Raleigh states that the North and South Carolina Association of Presidents of Women's Colleges at a recent session in Raleigh adopted a resolution pledging the several colleges not to admit students who had tuberculosis.

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Tuberculosis Directory

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Including a Directory of all Institutions and Associations Dealing with Tuberculosis in the United States and Canada, compiled by PHILIP P. JACOBS

CONTENTS

Sanatoria, Hospitals, and Day Camps in the United States and Canada, Hospitals for the Insane and Penal Institutions Making Special Provisions, Dispensaries and Clinics, Tuberculosis Classes, Associations and Committees for the Study and Prevention of Tuberculosis, Typical Forms of Organization of Associations, Legislation, Typical Laws.

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The College Club, composed of women of Pittsburgh, is campaigning for \$5,000 to build an annex to the tuberculosis hospital.

A bill is before the Louisiana Legislature asking for an appropriation of \$80,000 to build tuberculosis annexes on the grounds of the State Charity Hospitals at New Orleans and Shreveport.

An association of county and city health officers of Tennessee was recently formed with Dr. K. S. Howlett of Williamson County as President.

The sixth annual meeting of the Jewish Consumptives' Relief Society recently held showed an expenditure for the year of \$52,000 for the sanatorium in Denver, most of which was contributed in small sums ranging from 25 cents to one dollar.

The Tuberculosis Preventorium for Children, which was obliged to move from Lakewood, N. J., on account of local opposition, has been re-established in spacious quarters at Farmingdale, N. J.

An appropriation of \$100,000 has been granted by the Maryland Legislature for the purpose of enlarging the sanatorium at Sabillasville by an addition of 200 beds, making a capacity for 425.

The first annual report of the Modern Woodmen's Sanatorium at Colorado Springs shows that 244 patients were treated, 123 of them being discharged, and that the total cost of maintenance was \$46,411.27.


The Delaware Anti-Tuberculosis Society a year ago agreed to raise \$15,000 for a sanatorium, if the Legislature would give \$15,000 for a tuberculosis commission. The recent report of the society shows that \$15,318.08 was raised and the sanatorium is in a flourishing condition.

By the erection of 6 new cottages, soon to be opened, the capacity of the Minnesota State Sanatorium will be increased to 120 beds.

The Metropolitan Life Insurance Company has purchased a tract of 225 acres at Somers Centre, Westchester Co., N. Y., for the purpose of building a sanatorium for its tuberculous employees.

The tenth annual meeting of the Canadian Association for the Prevention of Tuberculosis will be held in Montreal on June 7th.

Dr. Morse's Sanatorium, formerly situated at Chimney Rock, N. C., has moved to Hendersonville, N. C.



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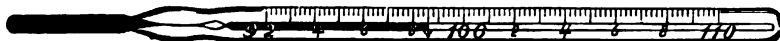
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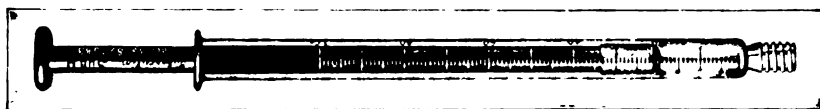


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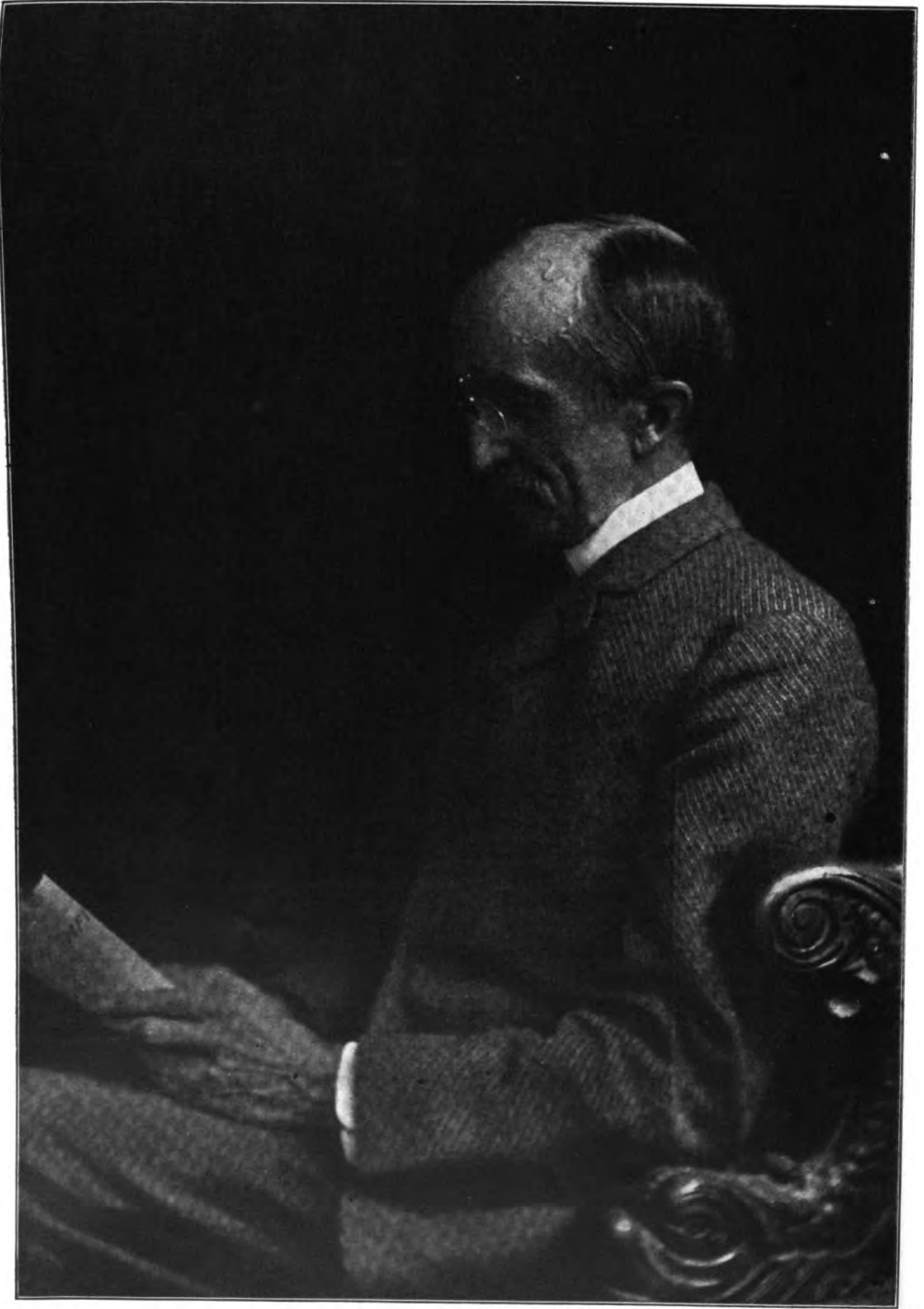
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EDWARD LIVINGSTON TRUDEAU

A BIOGRAPHICAL SKETCH

Dr. Edward Livingston Trudeau was born in New York City, October 5, 1848. He came from a race of doctors, as on one side or the other his ancestors were physicians as far back as he could trace them. His father was Dr. James Trudeau, of New Orleans, and his grandfather on his mother's side was Dr. Francis E. Berger, who was widely known as a physician in New York City during the early part of the nineteenth century.

It is interesting to note that Dr. Trudeau's father had the same intense love of woods that afterward developed in his son and often when the "call of the wild" would come he would go off for months at a time hunting with the Indians.

Dr. Trudeau went abroad when three years old. He was educated at the Lycee Bonaparte in Paris, returned to New York in the late '60s, and after trying various occupations for a short time, got an appointment as midshipman to the Naval Academy, which he was about to enter when his brother was taken ill with tuberculosis. He at once gave up his appointment and returned to New York to nurse his brother, which he did until his brother's death six months later. In those days there were no trained nurses, and he took entire charge of the invalid himself, sleeping always not only in the same room but often in the same bed with him, and he has often been heard to say that the attending physician made no objection to this, and that the principal recommendation which he often reiterated was, not to allow the window to be open night or day, as the air would aggravate the patient's cough.

After his brother's death Dr. Trudeau gave up all idea of entering the navy, and studied

medicine at the College of Physicians and Surgeons in New York City, graduating in 1871. After his graduation he married Miss Charlotte Beare, at Douglaston, L. I., went into partnership with Dr. Fessenden Otis, and began practicing medicine in New York City. His health soon broke down, however, and on consulting Dr. E. G. Janeway, one of his former instructors, he was told that he had pulmonary tuberculosis, advised to give up work and go South at once. He returned from the South much worse in health in May, 1873, and his son, Edward Livingston, was born at that time.

Dr. Trudeau's condition grew worse so rapidly that he was urged by his physicians to leave the city at once. Among his friends were Lewis and James Livingston and E. H. Harriman, who had taken hunting trips in the Adirondacks with him on former occasions. This wild region, then a very sportsman's paradise, always appealed on that account to Dr. Trudeau, and without consulting any physician he and his friend Lewis Livingston started for Paul Smith's in May, 1873. Dr. Trudeau was so ill that when the two young men reached Plattsburgh he could go no further, and had to rest there several days before undertaking the long drive of forty-two miles from Au Sable Forks to Paul Smith's. Young Livingston was urged on all sides to give up the idea of taking such a sick man to such an inaccessible place, but he refused to interfere with Dr. Trudeau's wishes. A mattress having been put in the stage wagon at Au Sable Forks, the start was made, and after a long drive of twelve hours Paul Smith's was finally reached. The guides, who knew Dr. Trudeau, at once welcomed him, and he

was carried up two flights of stairs by Charles Martin, who laid him down on a bed with the rather discouraging remark:

"Why, Doctor, you don't weigh no more than a dried lambskin."

So rude and primitive a place as Paul Smith's was in those days practically inaccessible to women and young children, and Mrs. Trudeau with the two young children remained with her father during that summer, while Dr. Trudeau's friends, the two Livingstons and E. H. Harriman, each spent a month in turn at Paul Smith's looking after the invalid. He saw little of the two Livingstons

in May, 1874, nearly as ill as he was when he reached there the year before. This was the beginning of a permanent residence in the region. It was with the utmost difficulty that in the Fall the consent of Mr. and Mrs. Paul Smith was secured to Dr. and Mrs. Trudeau's and the children's remaining at St. Regis during the winter. No "outsider" had ever stayed there through the winter, it was practically inaccessible at that time, being forty-two miles from a railroad, and they evidently feared that the Doctor would not survive the cold. They, however, finally gave a reluctant consent, and in the Fall Mrs. Trudeau took



MRS. TRUDEAU, DR. TRUDEAU (middle) AND DR. WALTON IN 1886
IN THEIR CAMP ON SPITFIRE LAKE

after this and they died before many years, but his friendship with Mr. E. H. Harriman remained very close throughout the latter's entire life. Mr. Harriman became a trustee of the Adirondack Cottage Sanitarium, and owing to his friendship for Dr. Trudeau always took a personal interest in its work.

The improvement in Dr. Trudeau's condition began at once, and by the Fall, when he returned to New York, he had gained ten pounds and looked in his usual health. He was advised to spend the following winter at St. Paul, Minnesota, but after a sojourn of one winter this did not prove a success. Accompanied by Mrs. Trudeau and the two children, he again returned to Paul Smith's

the children to see her father, returning with them in January to Malone, where they were met by Paul Smith and Dr. Trudeau. The trip into the woods was through deep snow, and after many trials for two days, and in trackless snow drifts, the exhausted party finally reached Paul Smith's in the second week of January, 1875. Buried in the deep snow, they remained there with little or no communication with the outside world, until May brought the advent of the first fisherman of the season.

During the winter, however, Dr. Trudeau improved remarkably and learned by practical experience the evil of physical exercise when he had active symptoms of tuberculosis; and

from that time he slowly regained within the next two years the appearance of rugged health. He had apparently lost all interest in medicine, as the fatality of his disease was then so thoroughly believed in, that he thought he had but a year or two to live. He has often been heard to say that the following years were the happiest in his life, as he had few cares, lived an open-air life, fishing and hunting, was surrounded by those he loved, and met many of his friends during the summer.

The following winter, 1876, was spent in Saranac Lake, as Paul Smith and his wife moved to Plattsburgh for the winter, where they had opened a new hotel.

In those days Saranac Lake consisted of a few guides' homes and a saw mill, and was forty-two miles from a railroad. One of the guides' houses was hired, furnished with a load of furniture sent over by Mrs. Paul Smith and the Trudeau family settled cheerfully down to the rigors of an Adirondack winter. Life in Saranac Lake was simple in those days. There was no coal, no water pipes, and no other light than that which was furnished by kerosene lamp or candle. There were no stores, no churches, and nothing came from the outside world, except when brought by the two horse sleigh which ran daily to Ausable Forks when the roads were passable. This was the beginning of the health resort known as Saranac Lake, and whose reputation now reaches across the sea.

From this time Dr. Trudeau's life began to change. Hunting and fishing little by little fell into the background, and study and the practice of his profession were resumed and after a few years absorbed his entire time and strength. He spent the winters in Saranac Lake, and the summers at Paul Smith's, from whence he practiced medicine all over the region among the summer visitors, and thus helped to meet the expenses of supporting his family. He thus also formed friendships with people who in the future helped him to build and have ever since helped him to develop and support the Adirondack Cottage Sanitarium and the Saranac Laboratory.

About this time he read an article in the *London Practitioner* describing Brehmer's method of treating tuberculosis, and this greatly impressed him. The idea of building and equipping an institution where patients of moderate means could be given the advantages of this method of treatment at less than the cost of operating the institution began to crys-

tallize in his mind. One fine September afternoon, while sailing up St. Regis Lake with Mr. Anson Phelps Stokes, he mentioned his desire to build such a place and to test for himself the advantages of sanitarium methods. Mr. Stokes at once fell in with the idea and offered to give him five hundred dollars if he ever attempted it; and this was the beginning of the Adirondack Cottage Sanitarium. Dr. Trudeau kept on collecting subscriptions from



DR. TRUDEAU PRACTICING MEDICINE IN THE SUMMER OF 1894.

his friends until he had a few thousand dollars, and built his first cottage in 1884.

A little before that time he had become interested in reading translated abstracts of Koch's paper on the Etiology of Tuberculosis, and he happened to mention his interest in this subject to his friend, Mr. Charles M. Lea. Mr. Lea, knowing Dr. Trudeau could not read German, sent to Berlin, had a translation of Koch's paper made in English, and by the aid of this paper alone, without labor-

atory or special apparatus, except what he could devise or procure in Saranac Lake. Dr. Trudeau succeeded in cultivating the tubercle bacillus and in repeating all Koch's inoculation experiments, doing the work in a small room in his house, and being probably the first to successfully cultivate the tubercle bacillus in this country. His house was burned by the explosion of his little thermostat. The Saranac Laboratory was then built by his friend, Mr. George Cooper, and presented to him (1894). This Laboratory has been kept in operation ever since, at first thanks to funds obtained from a few personal friends by Dr.

Lake and that of the summer at Paul Smith's. At Saranac Lake he gradually collected about him a remarkable group of medical men, who became inspired by his enthusiasm to study and treat tuberculosis along lines in which he was always the guiding spirit, so that Saranac Lake has become recognized as a leading centre in this country for all that has to do with this disease both from a clinical and from an experimental side.

For many years Dr. Trudeau's private practice was very large but his income was surprisingly small because of his inability to appreciate the value of his own services and his



DR. TRUDEAU IN HIS LAUNCH ON THE ST. REGIS LAKES. MRS. TRUDEAU ON THE RIGHT

Trudeau: and of late years, however, Mrs. A. A. Anderson has relieved his mind of the constant financial anxiety by bearing all the laboratory expenses herself.

The maintenance and development of both the Sanitarium and the Laboratory during the first ten years of their existence were a heavy burden on Dr. Trudeau's time and strength. He could afford no resident assistant at first at the Sanitarium, and he had to drive from Paul Smith's at least twice each week, fourteen miles each way, to do what was required at the institution, besides answering all of the medical calls at and about Paul Smith's.

Since that time Dr. Trudeau's life has been divided between that of the winter at Saranac

reluctance to in any way increase the financial burdens of his patients. Not infrequently his surprised patient would find that with a prescription which was handed to him without charge was enclosed the money with which to pay the apothecary; and this is simply an instance of the point of view of his life in its relation to others at all times. It is that of unselfish endeavor to do the best for every patient and to disregard any compensatory return to himself. Gradually he came to do less and less of the actual medical work of the Sanitarium and in recent years has had more to do with the executive and financial burdens of the institution, and in these lines he has shown surprising ability for one who had had no previous experience whatsoever.

In the laboratory work he was always keenly interested, and had the insight of the true scientist in regard to the proper method of approaching difficult problems. Almost all of the work which has come from the Saranac Laboratory by any of his co-workers has been directly or indirectly inspired by his genius.

In Saranac Lake, and in fact the whole Adirondack region, Dr. Trudeau is held in a loving respect by all classes, which is as rare as it is remarkable.

In the summer time at Paul Smith's he has practiced general medicine for many years, and in addition has made many of the friends from whom he has secured financial support for the Sanitarium. This life of combined general medical work and social relaxation at Paul Smith's has had an important influence upon Dr. Trudeau's life, yielding him a great deal of pleasure and affording much needed recreation from the more intense labors at Saranac Lake.

For many years he did all of the medical work on the St. Regis Lakes, making his rounds in a small Adirondack boat, but in recent years his electric launch, which was presented to him by Dr. Walter B. James, who recommended this "electrical treatment" for him, has been a prominent feature of the St. Regis Lakes and has added greatly to his comfort and pleasure. Every spring and autumn he goes to his mountain camp at Little Rapids and there continues to enjoy with unabated vigor the pleasures of the gun and the rod which have always been so dear to him.

Any sketch of Dr. Trudeau would be incomplete without mention of his deep and instinctive religious feeling; that his strength of character, optimism and courage amid struggles and disappointments are due to an intense faith, cannot escape anyone who really knows him. This in itself has meant to many of his friends and patients a wonderful support in the trials in which instinctively he is always called upon to share. Both at Saranac Lake and at Paul Smith's, Doctor and Mrs. Trudeau have been the mainstay of the Protestant Episcopal Church, and indeed these churches could not have existed as they are without their active interest and support.

His family life has been full of sorrow. One child died in infancy. An only daughter died of acute tuberculosis in 1893 just at the time that her father had largely regained his health and was grappling hard with the

problem of finding a cure for the disease. And finally, his oldest son, Dr. Edward L. Trudeau, Jr., died in 1904 of pneumonia at the beginning of a brilliant career in medicine. One son, Francis, is now a student of medicine at Johns Hopkins University.

Through all of this sorrow and struggle with ill health and numerous discouragements Mrs. Trudeau has been a wonderful support and help to the Doctor, who feelingly in a recent address ascribed all of his success and accomplishments to her influence upon his life.

Of late years the outside world has recognized the remarkable character of Dr. Trudeau's life, and honors have been freely bestowed upon him. In 1899 the honorary degree of Master of Sciences was bestowed by Columbia University, and he was elected one of the trustees of this institution. In 1904 the degree of LL. D. was conferred by McGill University; in 1905 he was elected the first President of the National Association for the Study and Prevention of Tuberculosis, and in the same year he was also President of the Association of American Physicians. He was Honorary President for America of the International Tuberculosis Congress of 1908, and in 1910 he was President of the Congress of American Physicians and Surgeons, which may be considered the crowning honor for a member of the medical profession in the United States.

In all gatherings in which Dr. Trudeau has been thus honored he has been greeted with expressions of affection as well as of respect which have probably never before fallen to the lot of any physician in this country.

In the Adirondack Cottage Sanitarium is a workshop in which many handicrafts are taught to the patients. To each completed work a printed label is affixed. It represents a bird with outstretched wings rising triumphant out of dying flames—the Phoenix, emblem of life and immortality. Surely Dr. Osler displayed the gift of prophecy when he wrote to Dr. Trudeau after the burning of his laboratory as follows:

"I am sorry to hear of your misfortune, but take my word for it, there is nothing like a fire to make a man do the Phoenix trick."

Out of his struggles and disappointments have come hope and life for thousands all over the country who love and honor him. For them, through Edward Trudeau the Phoenix has come out of Egypt.

EDWARD L. TRUDEAU—AN APPRECIATION

BY WILLIAM OSLER, M. D.

How true sometimes is the paradox of the Gospel that to save his life a man must lose it! Out of the depths,—“from our desolation only may the better life begin.” In that best of all medical autobiographies, *Jugenderinnerungen eines alten Arztes*, Professor Kussmaul tells the story of his student days and of the happy beginning of a busy life as district physician in the Black Forest—plenty of work, good health, and a happy home with wife and children. Then the overwhelming disaster—sudden paraplegia, a long struggle in adverse circumstances, and a final victory wrought out of the very elements of defeat. Would that the story were more common! And yet how often does ill health, the bridle of Theages, as Plato calls it, concentrate a man's resources and bring out qualities of work, the fruits of the spirit, which may be missed in the hurly burly of the work-a-day world. The issue is not as a rule a man of affairs, but rather the fiery soul of the artist or poet “fretting the pigmy body to decay.” Of all the blows of circumstance that *may* help to temper a man's metal chronic illness is the most uncertain in its effects. Those fortunate ones win out who early learn to work in limitations which seem intolerable to the robust, who wish to take the kingdom of heaven by violence. The late W. K. Brooks told me that he attributed any success he may have had to the recognition of a permanent (congenital) weakness of the heart: and surely of his Chelonian race any swift-footed son of Thetis might be proud! Now and then men are fortunate enough to overcome the worst foes encountered in the battle of life—chronic ill health, and an enforced residence in a paralysing environment. The attitude of mind so splendidly expressed in Henley's verse “*Out of the night that covers me,*” scoffs at the menace of the years, and unafraid, with unbowed head, the happy possessor of the unconquerable soul of this sort feels that

It matters not how strait the gate
How charged with punishments the scroll,
I am the master of my fate;
I am the captain of my soul.

And this is the lesson of Edward Trudeau's life—the lesson of a long and successfully

fought campaign. An implacable foe, entrenched within his own citadel, has been often brought to terms of truce, never wholly conquered. Little did he think when it drove him from a brilliant career in New York to seek health for himself in the wilderness that he was entering a land of promise,—that he was destined to become the Joshua of a movement of national importance, and an authority of world-wide reputation on the very disease which had made him flee for his life. And he would not be saved alone; and in many thousands of hearts do the words find echo which Matthew Arnold sings of his father:

We were weary, and we
Fearful, and we in our march
Fain to drop down and to die.
Still thou turnedst, and still
Beckonedst the trembler, and still
Gavest the weary thy hand.

While holding his own defences Edward Trudeau has fought the good fight for others, and has devoted a life to a masterful study of the tactics of the great enemy. His has been the faith that saves—faith in the success of the methods he knew so well; the faith that could give hope to those from whom hope had flown, and above all the contagious faith in himself that rallied to his support his brethren in the medical profession and the group of laymen through whose assistance the Adirondack Cottage Sanitarium has become a veritable Mecca. Who shall despise the day of small things? I like now to admit to the select company on my shelves only the literature that has a personal interest to me, or epoch-making works of the masters of medicine. When the 25th annual report of the Sanitarium appeared I had it bound, and it reposes in my library between a work of Laennec, and the story of the early days of the Johns Hopkins Hospital. I wrote on the fly-leaf “A triumph of optimism! This shows what a badly crippled man may do single handed, once let him gain the confidence of his brethren, medical and lay. Trudeau had the good fortune to be made of the stuff that attracts to himself only the best, as a magnet

picks out iron. Of an unselfish, sympathetic disposition, he secured the devotion of his patients, to whom he was at once a tower of strength and a splendid example. The Sanitarium has become a model, and the methods of work and results have reached a degree of excellence which must be very gratifying to its founder. The strong fibred nature of Trudeau is best illustrated by the fact that amid the worries of patients, and the perennial financial struggle to make both ends meet he stuck close to the scientific side of his profession and from the laboratory of the Sanitarium have come many important contributions, which have enriched the literature, and reflected the greatest credit upon American medicine." And in the same pamphlet I have

fastened a letter, one of two of his which I treasure. It was in reply to congratulations, and after referring to the trials and tribulations through which the Sanitarium had come, and the loyalty of his friends, he concludes: "Are there no other ideals than efficiency and success? I know you hate sentiment, but with some of us sentiment stands for a good deal and is a real factor in the problems of life; it is often the very spirit of that mysterious 'ego' which governs our actions and shapes our lives after certain ideals; and to my mind no field offers such possibilities for the development of high ideals as does the medical profession."

These highest ideals have been realized in the person of Edward Trudeau, of whose life and work we are so justly proud.

DR. TRUDEAU AS A PIONEER IN THE ANTI-TUBERCULOSIS MOVEMENT

BY HERMANN M. BIGGS, M. D.

A little more than twenty-five years ago a small frame cottage was built in the Adirondack wilderness, designed for the open air treatment of persons of very moderate means who were suffering from pulmonary tuberculosis. The institution which had this small beginning has developed in the intervening years into what is the best known sanatorium in this country, and into what is, in my opinion, to be regarded as the model institution of the world.

The brave man who inspired the undertaking, himself sorely stricken with the scourge, having been greatly benefited by an open air life in the woods, was determined that other sufferers less fortunate than himself should have the benefits which he believed such a life there would also confer upon them. Full of hope and confidence as he was then, and as he has always been, yet he little foresaw how full of significance to the social, economic and physical welfare of his countrymen this seemingly insignificant event was to prove.

Koch's remarkable researches on the etiology of tuberculosis had already pointed the way toward the possibility of prevention, but few had grasped the full meaning of his discoveries, and mankind was suffering bitterly from

what was then, and still is, the greatest remaining scourge of the race. Millions of persons throughout the world afflicted with this disease were facing as best they could what was regarded as the inevitable termination of their illness in death. No efforts were being made anywhere towards the prevention of this disease, and, with a few exceptions in Germany, no effective attempts had been undertaken through the establishment of institutions for its arrest or cure.

The writer well remembers the hopelessness with which the medical profession then regarded all measures designed for more than the temporary relief of the sufferings of these unfortunate patients. At that time, when a definite diagnosis of pulmonary tuberculosis had been made, the future course of the disease was regarded as being practically certain, and in the various hospitals everywhere throughout the country, where thousands of these patients were received for treatment, they were sorrowfully resigned to their fate with only such palliative treatment as seemed possible.

The first gleam of hope for those sufferers came with the establishment by Edward L. Trudeau of the Adirondack Cottage Sani-

tarium and the beginning of the open air method of treatment of the disease. Those who are familiar only with the more recent history of the movement for the prevention and treatment of tuberculosis, can hardly realize the attitude which the medical profession and the laity maintained toward this innovation, nor how tremendous was the change in the situation which its adoption involved. Previously, patients suffering with this disease had been most carefully shielded from every breath of fresh air, had been housed in artificially heated rooms, kept at a high and uniform temperature, covered with blankets, fed on liquid food, and drugged with remedies intended to allay the ever harassing cough and to prevent the recurring profuse perspirations and the fever. All the therapeutic measures adopted, well intentioned though they were, resulted in the production of conditions more and more favorable to the extension of the disease, and the name, pulmonary consumption, or wasting disease, well describes the affection as it was seen in those days.

It would be almost impossible for a young physician to-day, whose experience has been limited to the cases of pulmonary tuberculosis under treatment in a modern sanatorium, to understand how the clinical history of this disease as described in the text-books could have been written, for the clinical picture of the affection as he sees it is one which no longer presents most of the features there detailed. Instead of the pale, rapidly emaciating sufferer with hectic flush, harassing cough and profuse expectoration, sleepless nights, with drenching sweats and an ever increasing intolerance and repugnance to food, he sees well nourished patients with tanned cheeks, hearty appetites, almost, or entirely, free from cough, expectoration and fever, daily gaining in weight and strength. For this fundamental change in the method of treatment of pulmonary tuberculosis and in the results obtained, with all that it involves, directly and indirectly; for the change in the outlook in many cases from despair to a hopeful confidence; for the establishment of hundreds of clinics and sanatoria throughout this country; for the approaching universal adoption of the open air method of treatment for the sick, and the open air life for the well, Trudeau's work is responsible to a greater extent than that of any other man or than that of any group of men in this country. Tens of thousands of persons owe their health and their lives to his strong and beneficent personality, and the whole great movement here for the prevention and treatment of pulmonary tuberculosis may be said to have originated at Saranac Lake with the erection of that small frame cottage and the establishment of the Adirondack Cottage Sanitarium, a little more than twenty-five years ago.

It should be said, however, that the influ-

ence of Dr. Trudeau on the tuberculosis movement here and elsewhere, is not wholly or even chiefly due to the results obtained in the Adirondack Cottage Sanitarium, but rather to the high character of the scientific work which he has done, to the direct and indirect influence of his personality, to his unwavering enthusiasm and confidence, and to his remarkable capacity for attracting, inspiring and directing the work of his associates at Saranac Lake. Under his guidance there have been developed and trained at the Saranac Laboratory a group of men who have contributed many important publications on various phases of the tuberculosis problem, and there have been sent out from this little village to various parts of the country numerous physicians and laymen full of Trudeau's beliefs and outlook as to the possibilities for the arrest and cure of this disease. His influence exerted through his pupils and patients has served as the inspiration for the organization and establishment of many institutions and associations in various parts of the country designed for the relief of sufferers from tuberculosis.

No one in America has contributed by scientific publications as much, either to the direct solution of the practical problems in treatment or to the elucidation of the technical questions involved, as Trudeau has done. His remarkable faculty for converting every individual with whom he comes in contact, whether he be physician, patient, or casual acquaintance, into a profound admirer of him as a man, and into a strong and enthusiastic believer in and worker for the cause of tuberculosis, has served to extend and broaden his influence to a most extraordinary degree. His personality and his scientific publications, together with those of the men whom he has directed and kept around him, and the fame acquired by the Adirondack Cottage Sanitarium, which depends not on its size but upon the character of work done (for it is only a relatively small institution as compared with many others), have made for the town of Saranac Lake a world wide reputation.

Every foreign scientist interested in the tuberculosis problem is perfectly familiar with the Adirondack Cottage Sanitarium, and the work of the Saranac Laboratory, and its director, and when anyone of them comes to the country he desires, first of all, information as to these institutions and the work of their director, and desires to visit Saranac Lake in order that he may have personal acquaintance with these institutions and personal knowledge of this remarkable man and the work which he has done.

There is not the slightest doubt that the movement for the prevention and treatment of pulmonary tuberculosis in this country has gained a far greater impetus and been organized on broader, more comprehensive and effective lines than any similar movement in

any country in any part of the world. Nowhere has the open air method of treatment been developed to the extent that it has been here. Even in Germany, where the first important institutions in the world of this kind were founded under the guidance of Brehmer and Dettweiler, the leaders are far from having grasped the full significance of the open air method of treatment, or from having developed it to anything like the degree which

has been the case in America. The situation here is due almost entirely, directly and indirectly, to the influence of Trudeau, and of his pupils, and to the Adirondack Cottage Sanitarium which he founded and has maintained and directed.

It is my deliberate opinion that there are few men in the history of the United States who have contributed more to the real welfare of their countrymen than he has done.

DR. TRUDEAU'S VISIBLE MONUMENT THE ADIRONDACK COTTAGE SANITARIUM

BY EDWARD R. BALDWIN, M. D.

Whatever those who know him may individually think is his chief distinction and however much they may esteem him in their personal relations, there is no question but that the world at large looks upon the Adirondack Cottage Sanitarium as the visible evidence of

Trudeau were asked what has been the chief matter of concern to him about the Sanitarium during all the years, I believe he would answer: "How I could obtain the means to maintain and develop it." From the very start this has been a source of great anxiety, and



THE ADIRONDACK COTTAGE SANITARIUM IN 1885

Dr. Trudeau's inspiration and genius. If ever there was an institution promoted and kept alive by one man's power it is this.

It is no small obligation, therefore, to express fully the appreciation due him from the writer, whose familiarity with the earlier years of this institution made him aware of the difficulties which had to be overcome.

Of the later years of comparatively rapid development and ease of the financial burden I cannot write from such intimate knowledge. It is sufficient to state, however, that if Dr.

yet his work has been loyally supported by his lifelong friends year after year.

The explanation of this apparently unnecessary solicitude was not always understood, but it was simply because he felt for some years after the enterprise was launched that the contributions were made as a personal expression of regard for him, rather than from a conviction of the wisdom and value of the institution. To a great extent this was true, and it must be admitted that the task of soliciting funds has always been his by common consent.

Without business experience or acumen, with no knowledge of institutional management, his sensitive nature felt all the more keenly the obligation under which he placed himself to his friends. He knew he would have few if any cures to show as a result to justify the effort, because incipient tuberculosis was generally unrecognized. Thus the first years were ones of doubt and embarrassment. Those who can view in perspective the prevailing ideas of that time will comprehend the situation of an institution purporting to treat consumption. As for curing it, with methods so simple, such a thing was preposterous!

In an address at the opening of the Phipps Institute of Philadelphia in 1903 Dr. Trudeau has graphically described these conditions of twenty-five years ago. The two influences that impelled him to make the attempt were, first, the desire to render the advantages of the Adirondack climate available to patients of modest means who otherwise could not resort thither; and second, the belief that Brehmer and Dettweiler were on the right track in regulating the life of patients in an institution.

Another thing of transcendent importance was a source of inspiration to him at this time. This was the discovery of the tubercle bacillus by Koch. It fired his imagination to think of the possibilities latent in this most marvelous advance in medical science. Up to that time his interest in this new science of bacteriology had been casual. As he often said, he did not even take a medical journal after his exile began in the great North Woods. But now he immediately procured a microscope and went to work with a will; and, relying for the most part on his own unaided efforts, he strove to gather together all the information he could.

Nevertheless his enthusiasm about the Sanitarium was constantly put to a sore test by the difficulties in operating it during the first ten years. The buildings and equipment were altogether inadequate. The medical assistance that he could command was voluntary on the part of physicians who lived near by or were themselves patients. Although in comparative health at the time, it was a tax upon his strength to drive fourteen miles during the summer to and from Paul Smith's to the Sanitarium in administering its affairs. His wife usually accompanied him on these long drives

and did much to lessen the discouragement so often caused by the troubles inevitable from a hitherto untried experiment.

The cottage plan was adopted at the beginning for the purpose of separating the patients to avoid the depression incident to their symptoms. Like so many other ideas that became rooted in Dr. Trudeau's mind, it afterward appeared to have been an unconscious foresight, for by this feature he was able to build up the institution step by step from gifts of new cottages. By gradually adding more cottages and of better design, as experience taught the way of improvement, he was thus enabled in the absence of large individual donations of money to develop an institution admirably adapted for incipient patients. This was almost entirely through the friends and summer guests at Paul Smith's at first, and later from those in other Adirondack resorts as well. Dr. Trudeau was wont to spend much time in showing the institution to prospective donors whom he brought from the hotels or camps in order to interest them, and who usually had expressed their desire to see it.

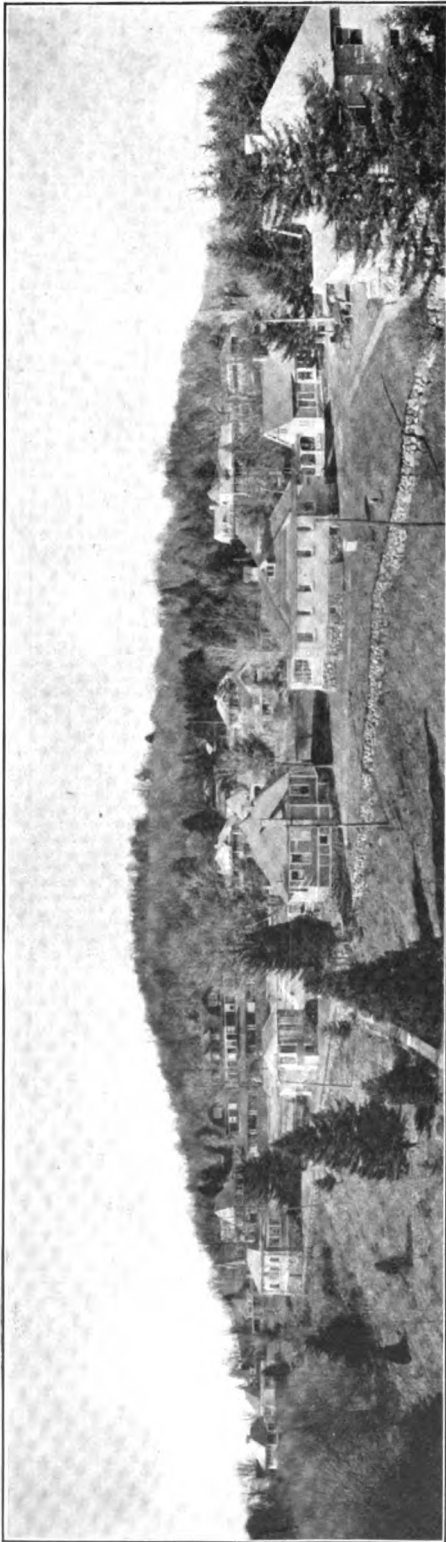
Hence the winter was a more favorable time for him to come in contact with the patients. They always looked forward with eagerness to his visits, and crowded his private ante-room awaiting examination and a verdict as to their condition.

For a number of years he made the examination of applicants in Saranac Lake without assistance. It caused him much fatigue and was an exceedingly great drain upon his sympathy, since the number of advanced consumptives desiring help steadily increased and more and more of them were rejected. History will not record the number of these who were given a trial in the Sanitarium because of their dire need; or the equally large number who received as well a truly human touch of cheer and material aid when they could not be admitted into the Sanitarium. This personal relation was felt in some degree by all the inmates of the Sanitarium because they knew that Dr. Trudeau had passed through the same struggle that they must undergo. Even when they seldom saw him and he was unable to know much of the details in their individual cases, it was of the utmost satisfaction to have a brief interview with him. It was the indescribable something called per-



"THE LITTLE RED"

FIRST BUILDING OF THE ADIRONDACK COTTAGE SANITARIUM



THE ADIRONDACK COTTAGE SANITARIUM AS IT IS TO-DAY. ABOUT THREE-FOURTHS OF THE BUILDINGS VISIBLE

sonality and his intuition which impressed the patient. Often they forgot entirely the questions they intended to ask him, because he gave his opinion in a ready, illustrative manner which needed no further explanation.

The details of treatment were generally left to the resident physicians for execution and to a large extent matters of discipline also. It cannot be said that Dr. Trudeau enforced discipline by strict rules. He shrank from the harsh application of the Sanitarium regulations sometimes found necessary. On the other hand, when an exceptional breach of rules occurred or the limit of tolerance had been reached, he acted with decision in expelling the offender.

As outside cares increased, and his time was more and more occupied in soliciting funds for the institution (whose cost of maintenance greatly increased), he was unable to come into close touch with many of the patients. In one respect, however, he never failed to manifest his lively interest during all the years; and that was in the effect of new methods of treatment, especially the specific treatment by tuberculin. No recognition of Dr. Trudeau in connection with the Sanitarium would be complete without reference to his sustained interest in tuberculin. This is another instance of an inspired faith that some good would come from it, a belief to which he firmly clung, in the face of most violent opposition and prejudice against it. Small credit is due to those of his associates who, like the writer, entirely lacked enthusiasm and courage to continue its use. Both by his own observations on animals and his experience with patients was he convinced that immunizing treatment would materially supplement the sanitarium régime to the benefit of patients. For that reason this treatment was never entirely abandoned at the Sanitarium, though employed on selected cases for the most part.

Behind all Dr. Trudeau's success in creating and perpetuating this unique institution the notable fact stands out that the confidence that he inspired in people was genuinely earned. When he seemed visionary to his friends they discovered that he was most cautious in executing his ideas. By the personal attachments he created he was able to harmonize discordant elements in the machinery of an institution, a consummation devoutly sought but rarely attained by many a leader of less noble quality.

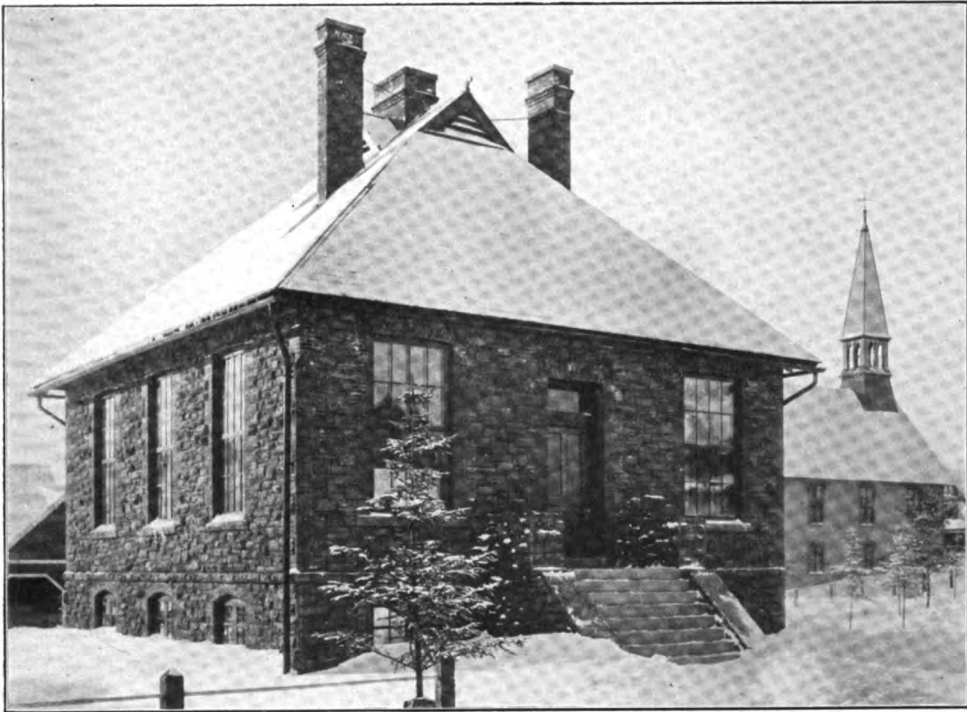
May the lesson in human sympathy and the ambition to be of service never be lost to us who are privileged to witness it!

EDWARD L. TRUDEAU, PHYSICIAN, INVESTIGATOR AND OPTIMIST

BY SIMON FLEXNER, M. D.

To accredit properly the service which Dr. Trudeau has rendered to the Science of Medicine, particularly in regard to the subject of Tuberculosis, we must consider briefly the state of the prevailing knowledge and beliefs regarding tuberculosis at the time at which his notable career began. In 1873, when he first entered the then wilderness of the Adi-

relation of scrofula to tuberculosis was an open and oft-debated one, not to be settled until the tubercle bacillus had been seen, propagated and successfully transmitted, in pure cultures, to animals in which it set up the unmistakable lesions of tuberculosis. No actual experimental tests could, until then, be made upon the question of the transmission of the



THE SARANAC LABORATORY FOR THE STUDY OF TUBERCULOSIS

rondacks, tuberculosis was considered by the medical profession generally as an incurable and, generally speaking, inevitable, because inherited, disease. It is true that Villemin had already established, by experiments on animals, the communicable nature of tuberculosis; but since the germ cause of the malady was still undiscovered, the precise nature and sources of the infection were still matters of opinion and dispute. The question of the

tuberculosis germ from parent to offspring, tests that have since been carried out in a rigorous manner and have proved that it is very exceptional for tuberculosis to be acquired congenitally and thus, incidentally, have shed a hopeful light upon the prevention of the disease. Change of residence and climate had, it is true, been employed to arrest the disease in the severely tuberculous, but there existed no body of facts to warrant any

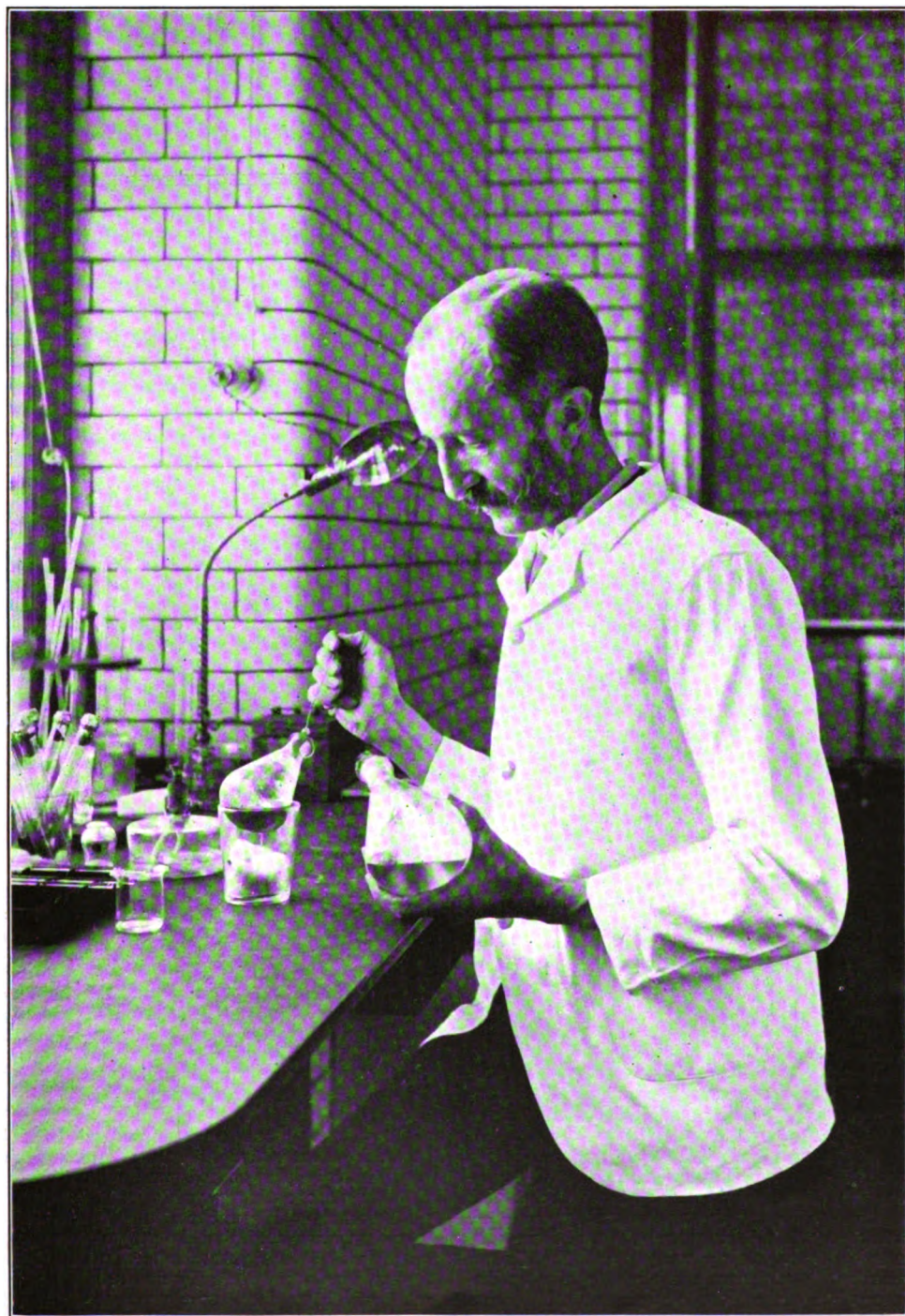
firm belief in their staying powers, and since the measures were resorted to only in advanced and unfavorable cases, the general medical opinion concerning them was not highly favorable. Most of all, no accurate knowledge, generally available, existed, enabling physicians to detect, with precision and certainty, pulmonary tuberculosis or consumption in its incipency, and thus at the most favorable period for its control. In Germany, indeed, the first beginnings of the movement, set on foot by one or two far-sighted men, were perceptible, which a quarter of a century later, and in this country through the example of Dr. Trudeau, was to bring into existence the modern sanatorium for the treatment of tuberculosis. What this movement has meant, not only for the individual sufferers from tuberculosis in establishing the curability of a high percentage of cases of pulmonary tuberculosis, but for communities in the part it has come to play, in one guise or another, in reducing the prevalence of the disease itself, does not require emphasis here.

The year 1882 must always remain a notable one in medical history, since the announcement of the discovery of the tubercle bacillus was then made. The quickly sensitive response of Dr. Trudeau was again revealed in the immediate use to which he put this discovery. A friend having translated Koch's epoch-making paper on the Etiology of Tuberculosis for him, Dr. Trudeau was at once inspired by its reading to take up the scientific studies on tuberculosis, which he has since never laid aside. The beginnings of his strictly scientific studies were hardly less hard and exacting than the beginnings of the sanatorium treatment of tuberculosis had been. However much the Adirondacks has changed from the original wilderness to a health resort in the previous ten years, they were still a wild and remote region in which to pursue the science of bacteriology. The difficulties to be overcome were great. No special training in bacteriology, no apparatus, no books, no contact with other minds which might have supplied help were, however, small obstacles to his determination.

During occasional visits to New York, opportunity was found to learn the elementary principles of bacteriology and to acquire the technique of staining the tubercle bacillus. With this modest beginning, the effort was

made, and successfully, to cultivate the tubercle germ, even now not an easy task, in his primitive surroundings. With the cultures thus secured, the clinical inoculation experiments were made. It is noteworthy that one of the first subjects to which Dr. Trudeau turned his attention, now that his inoculation experiments were successful, was the influence of extremes of environment on the course of inoculation tuberculosis in rabbits. "Many of the inoculated rabbits allowed to run wild on an island recovered or developed only localized disease, while those placed under the most unhygienic conditions I could devise, died of tuberculosis in a few months. The results of this research increased my confidence in the influence of a favorable environment on the course of the disease, and confirmed my faith in the value of the sanatorium and open air method of treating tuberculosis."

Very early in the course of his experimental studies on tuberculosis and in spite of the remoteness of the Adirondack laboratory, Dr. Trudeau set himself the task of endeavoring to apply the principles of immunity worked out by Pasteur to the conquest of tuberculosis. The outlook for success was meagre indeed; for the differences between anthrax, chicken cholera and rabies, which had been conquered by Pasteur, and tuberculosis are profound. On the one hand were diseases of acute character showing, once they were overcome, no tendency to relapse and not causing wasting and destruction of vital tissues that must somehow be repaired, and on the other hand, such a disease as pulmonary consumption, injuring and destroying tissue and, when temporarily under control, tending to reappear or relapse through causes many or most of which were ill understood. The fact is worthy of emphasis that "during the same week in which Koch's announcement of the discovery of tuberculin and of his hopes as to its specific curative action on tuberculosis was flashed across the ocean," Dr. Trudeau published an article describing attempts to produce artificial immunity in animals by injection of sterilized and filtered liquid cultures of the tubercle bacillus. While these experiments were practically unsuccessful, they were highly important as the forerunner of the later successful experiments which Dr. Trudeau carried out on immunization by means of living, attenuated cultures. These latter experiments date



DR. TRUDEAU AT WORK IN THE LABORATORY IN 1895

from 1902 and 1903 and may be looked upon as the first really promising, because successful, achievements in this field of research. Dr. Trudeau protected rabbits from virulent tubercle bacilli by first injecting them with a culture of bird tubercle bacilli, the subsequent injection of virulent mammalian bacilli being made into the anterior chamber of the eye. The rabbits to be protected were twice injected subcutaneously at intervals of twenty-one days with cultures of the avian bacilli. About one in four of the rabbits died within three months, profoundly emaciated, but without tuberculous lesions. The remaining animals recovered and were apparently in good health, when, with an equal number of controls, they were inoculated in the eye with a culture of mammalian tubercle bacilli. The results are instructive. In the controls little or no irritation following the operation is observed and the eye remains quiescent or nearly so for about two weeks, when tubercles appear and after a few weeks general inflammation of the structures of the eye develops, the inoculation wound becomes cheesy and the eye is more or less completely destroyed. The disease however, remains usually localized in the eye for many months, and may remain there permanently, depending upon the virulence and number of bacilli injected.

In the vaccinated animals, on the contrary, the introduction of the mammalian bacilli at once gives rise to a marked degree of irritation. From the second to the fifth day the vessels of the conjunctiva become engorged, and evidences of marked inflammation appear in the anterior chamber and on the iris (reaction of immunity). However, at the end of the second to the third week, when the eyes of the controls begin to show progressive and steadily increasing evidence of inflammatory reaction, the irritation in those of the vaccinated animals begins slowly to subside and the eyes to mend. In from six to twelve weeks, in the successful cases, all irritation has disappeared and the eyes present only the evidences of traumatism and inflammation. This experiment leaves no doubt of the protective influence exerted by the first inoculations of the avian bacilli and clearly establishes that related cultures of tubercle bacilli of moderate virulence for an animal species can afford protection to subsequent inoculation with special and more pathogenic strains of the bacillus. Notwithstanding the fact that, as Dr. Trudeau records, some of the protected animals slowly relapse and the disease resumes its progress, although by almost imperceptible stages, the experiment still shows that protection, not absolute immunity, from tuberculosis may be obtained in rabbits by a species of vaccination.

It has been possible in this brief space to indicate merely one or two of the main lines of research pursued in the laboratory at Saranac Lake by Dr. Trudeau. In the course of the development of the Adirondack Cottage Sanitarium, the growth of the laboratory and, what is infinitely more important than the laboratory, of the scientific spirit, has kept pace with the other expansion. The young physicians, who have, from time to time, come under the influence and guidance of Dr. Trudeau, have in succession become contributors to our knowledge of tuberculosis in its theoretical, as well as practical, aspects; and each year there have appeared from the pupils of this laboratory important studies and investigations that have thrown a ray of light here or there into still partly unilluminated depths of the tuberculosis problems.

The obvious special element in Dr. Trudeau's professional life has been a high degree of sensitiveness to the impending great movements in medicine about to affect the problems of tuberculosis. His acute ear discerned long in advance of others the true significance of Brehmer's teachings and then, a little later, immediately responded to Koch's profound discovery. "Brehmer taught us the value of sanatorium methods, and the great principles which underlie the open-air treatment of tuberculosis. * * * Before Koch's great discovery of the tubercle bacillus, we were ignorant as to the cause of tuberculosis and the methods of its propagation, and helpless to do anything to stay its spread. Henceforth, tuberculosis is no longer a mysterious and intangible entity. * * *"

Dr. Trudeau has been a great teacher in medicine and his teachings are not the less effective because not spoken from the rostrum and with the deep and penetrating voice of a powerful frame. Wherever the science of medicine is cultivated there is known Saranac Lake and Dr. Trudeau and his band of patient workers. It is a peculiarly fortunate circumstance that permits us, just at this time, to penetrate a little deeper into the secrets of his remarkable career and thus to learn what quality, of all others, Dr. Trudeau himself views as the guiding influence of his life.

"As I look back on my medical life, the one thing that seems to stand out as having been most helpful to me, and which has enabled me more than anything else to accomplish whatever I have been able to do, seems to me to have been that I was possessed of a large fund of optimism; indeed, at times optimism was about the only resource I had left with which to face most unfavorable conditions and overcome serious obstacles. * * *"

May we all ponder well this pregnant confidence.

DR. TRUDEAU AS A WOODSMAN

BY CHARLES C. TREMBLEY, M. D.

"You should have heard him speak of what he loved; of the tent pitched beside the talking water; of the peep of day over the moors; the awakening birds among the birches; how he abhorred the long winter-shut-in cities; and with what delight at the return of the spring, he once more pitched his camp in the living out-of-doors."—R. L. STEVENSON, "Beggars."

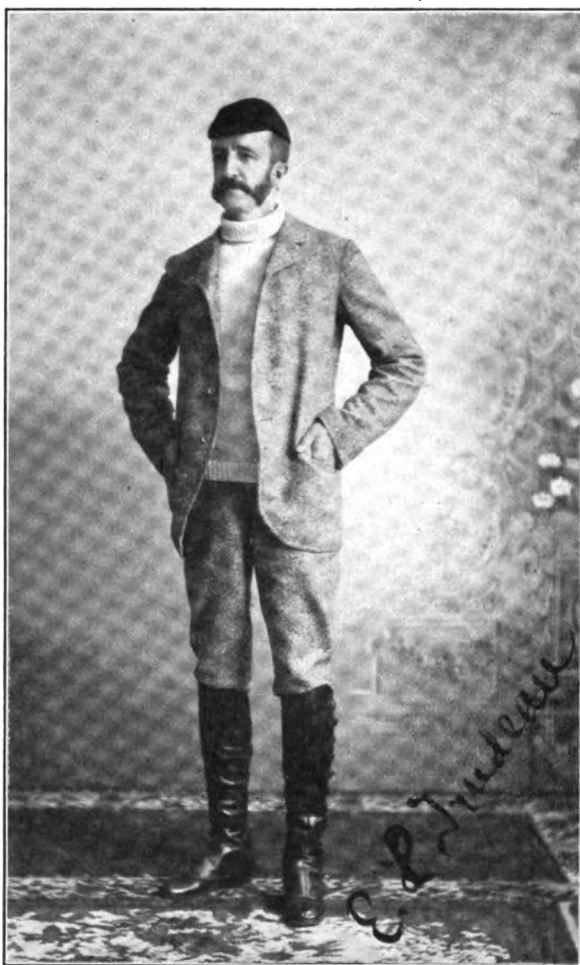
In every nature there is an inherent trait, either dormant or dominant, which exercises a marked influence on the course and consummation of a man's life and achievements.

Those to whom is granted the pleasure and good fortune to know Dr. Trudeau intimately are aware of his deep seated love of the woods. They realize, moreover, what a marked influence this has exerted, not only in the endeavor to regain his own health, but to help others to the same end through the conception and construction of the sanitarium, and the accompanying growth of a flourishing village in the heart of the forest.

Dr. Trudeau first came to the Adirondacks as a city boy, unused to the ways of the woods; but, full of enthusiasm, he joyously entered into its pleasures and hardships. A woodsman, like a poet, is born, and the guides looking upon all city boys as necessary evils, at best, soon showed admiring acknowledgment of the doctor's inborn ability with rifle, rod and canoe; and yielded to the charm of his personality.

The guide of the old school, soft spoken, keen eyed, gifted with an analytical judgment of men, based upon years of slowly formed but certain appraisement of varying types under various conditions, has a theory that should you wish to know an individual, not as he appears in social life but in his primal nature, you must sleep beside him in the open, tramp beside him in the forest when the way is rough, burdens are heavy and rations are

low; feel sympathetic melancholy in the drizzling rain, and breathe mutual exhilaration on the green fringed waters. One of the greatest tributes to Dr. Trudeau's character and a perfect index to his fortitude, his generosity and his unselfish zeal for the welfare of all who are associated with him, is the devotion and



DR. TRUDEAU IN 1893

loyalty of these guides—these natural men of the woods.

Many stories of Dr. Trudeau's marksmanship are recounted.

Hose Colbath, who guided Dr. Trudeau in the days of his adolescence, tells this story of Adirondack Murray and Mace Colburn, whose names are known to all familiar with the northern woods. They were two of a party of crack shots who were making a trip through the Adirondacks in 1867. They had met and defeated all marksmen along the route, and on reaching Paul Smith's they endeavored to arrange a match. After humbling several of the cracks there, they asked if there was not a young man by the name of Trudeau who was supposed to be something of a shot. Hose, who had been watching the shooting, admitted that there was, and, after arranging several side bets to his satisfaction, repaired to the hotel, and by threats, prayers and exhortations induced the Doctor to come forth and shoot.

Young Trudeau's superior skill was quickly demonstrated, and Hose, after pocketing his wager, suspended some empty cartridge shells from the limb of a tree, causing them to swing in a wide arc, and the young man deftly picked off one after the other to the amazement of the former champions.

When in after years the doctor's health became undermined, he turned for succor to the woods he loved, as naturally as a hurt child seeks its mother.

Fighting a supposedly incurable malady under adverse conditions, often leaving his sick bed to minister to some stricken member in a native family, he exhibited that indomitable spirit which imbues all great men of the open, the spirit which sustained Peary in his cheerless, soul-racking arctic journeys, which impels Grenfell in his perilous ministrations, and which pervaded Stanley's tropic search amid unknown dangers and diseases.

Often shut off from communication with the outside world for long periods by the difficulties of transportation, had he been unversed in the ways of the woods the life would have been intolerable; but loving the woods he found solace in the aroma of the pines, the soothing melody of the rippling brooks, and the forest life.

To him as a woodsman the forest was a constantly varying source of joy, not only in the present, but in anticipation and in reminiscence. The pulsating drum of the strutting grouse, the widening swirl of the feeding trout, or it may be a deer with outstretched neck and flaring ears stepping warily out upon

the marsh, awakened memories which became reveries in the semi-somnolent comfort round the camp fire, as it cast its enfolding warmth.

And so the early days of convalescence passed in quiet contentment, bringing increasing vigor and permitting a renewal of the hunting trips which afforded him such recreation and enjoyment. It was upon one of these trips that he conceived the Adirondack Cottage Sanitarium project and decided upon its site.

A rail fence zigzagged down the mountain side to the corner where the chapel now stands and this was a favorite runway for foxes started back of the present Sanitarium site. During the late fall months bait was deposited on the mountain top to tempt the foxes, and nearly every favorable morning during the early days of his convalescence Dr. Trudeau could be found at this point awaiting the moment when the far off bay of the hound should announce that the race was on.

During the wait before scent was found he wandered over the area near by, and the beauties and possibilities of the spot impressed him greatly; the long plateau at the base of the sheltering mountain; the green background of the forest; the wide view of the valley of the Saranac below, and the rolling range of mountains beyond. Thus was sowed the first seed of this philanthropic enterprise, and the doctor's pleasure in recalling the incidents which happened on this runaway is fully as evident as when he describes the gradual transformation of the plateau, rock strewn and sparsely wooded, to its present beautiful aspect.

Gradually he drew about him a little coterie of men, impaired in health, but strong in their love of the woods, who, under his guidance, were anxious to share the unknown rigors of an Adirondack winter.

The knowledge of their restored health quickly spread, and to accommodate the influx of health seekers a prosperous village sprang up—a monument to Dr. Trudeau as a woodsman, as well as a philanthropist and scientist.

As a result of the increased cares which the growth of the sanitarium and the scope of his work entailed, his health, which his life in the open had so strengthened, was seriously threatened. Once more he turned to the forest, and, recognizing that he must have a definite haven for recuperation, he, in con-

junction with several friends, acquired a beautiful tract of woodland abounding in game, and with a marvelous little stream which in front of the camp breaks into rapids and terminates in a pool such as fishermen dream of, teeming with hungry trout of unusual size and beauty.

On spring evenings, after a particularly trying demand upon his time or health, the Doctor can be found at this pool, casting off care with each straightening of the line, the gleam of battle and the joy of living apparent in every lineament, and near him, alert with contagious enthusiasm, his guide, Fitz Halleck, the devoted companion of so many hunting and fishing trips.

And when the setting sun casts deepening shadows over the pool and the trees stand forth in softening silhouette, with full creel and light heart he hurries to the camp, waving his hand in loving appraisal to one who stands waiting in the waning light; one whose unselfish devotion and gentle ministrations have softened so many of the rough places, whose kindly spirit and Christian fortitude have served as inspiration and prop. As the Doctor comes towards his wife her face is aglow with sympathetic pleasure and gratification, for she realizes that the care-absorbing, strength-giving power of the forest is helping her to prolong that precious life of personal devotion and universal usefulness.

DR. TRUDEAU'S FIRST WINTER IN THE ADIRONDACKS

BY PAUL SMITH

Dr. Trudeau was here in the winter of 1875, and we went over to Malone to get Mrs. Trudeau and Ned and Chatte; he had two children then. I went down with two big heavy teams—he had a lot of stuff to come up—and the doctor took his horse and cutter. We got to Malone and I guess we stayed there one day. It snowed all the time. But we loaded up the next morning and started for home. Got to Duane, fourteen miles, and we were in the snow all day long; the horses up to their sides in snow. I took the children out, cut a hole in the snow, put a blanket in, and took Chatte and Ned and put them in this big snow hole, and there they stayed until we got the horses through the drifts, and that night we stayed there—came fourteen miles that day.

The next morning we started again and came up to McCollom's, about eight or ten miles; got there at three or four o'clock in the afternoon, and so we stopped the cobs, got something to eat, started again and wallowed through the snow up to the horses' sides. The doctor followed us with his cutter; we made the road for him. We got out here to Barnum Pond along in the night about ten o'clock. Then we got onto Barnum Pond and left our loads

there, and we got onto those two big teams and rode them and they broke the road. Then we came onto Osgood from Barnum, and came on down to the house; got here at eleven or twelve o'clock at night. Mrs. Smith was up and had the table all set. Dr. Trudeau never forgot it in the world.

Lew and Jim Livingston were here that winter. They came up to see Dr. Trudeau and were here two or three weeks visiting. Great big, strong, healthy fellows. The doctor would put his thermometer in his mouth—he had burning fever every afternoon; says he, "Where's Al McKenzie?" (that was his guide). "I want to go out and shoot rabbits." He would go out and hunt rabbits with a burning fever.

The doctor was a great hunter in those days. Hit everything he aimed at. There weren't many people here then, and he would shoot out over the lake. Had a long board with holes made in it, and they put bottles in the holes—about twenty-five of them—and put the board out on the water and the doctor would shoot those bottles—hit them every time.

Well, when the Livingston boys came to go home they bade the doctor good-bye, and then they came to me and said:

"I've bid the doctor good-bye for the last time; I'll never see him again." And one of the boys, I think, died in New York and the other died in Rome.

Dr. Loomis bade the doctor good-bye a good many times. He came to me and said, "I have bid the doctor good-bye; I shall never see him again." Dr. Loomis has been dead a good many years.

Dr. Trudeau has outlived them all.

Old Redwood, an old Englishman that lived down at Keese Mills, lost his horse. Mrs. Trudeau had an Irish girl who lived with them—Annie Trudeau, we used to call her; she married an Irishman down in Franklin. So Annie came down to the kitchen after something and heard us telling about Redwood losing his horse; how we all felt badly for him, for he used to draw stuff at Bay Pond and the horse supported him. So this girl went back upstairs and told Mrs. Trudeau that Redwood lost his horse. Dr. Trudeau lay there and listened to it; he was the sickest then I ever saw him; couldn't talk a bit—so weak. He beckoned to Mrs. Trudeau. She went up to the bed and he whispered,

"Redwood lost his horse?"

She says "Yes."

He says, "You send Annie down and have Paul come up here."

So I went up and he beckoned to me. I went over to the bed. He pulled me down and whispered:

"Redwood lost his horse?"

I says "Yes."

He says, "What kind of a horse can you buy for a hundred dollars?"

I said, "A man named Brink up here has a good horse I can have for a hundred dollars." He told me to send up and get the horse, so I did. Brink brought the horse down and cleaned him all off nice at the barn before we showed him. The doctor had a front room at the hotel, so we brought the

horse around to the front of the house. I sent two guides upstairs, and they took the doctor out of bed and carried him to the window. He looked at the horse and nodded his head. Then the guides carried him back to bed, and he sent down after me to come up, and asked Mrs. Trudeau to write a check for a hundred dollars. So she wrote the check, and I raised the doctor up and they helped me put some pillows under him and bolstered him up in bed, and put a pen in his hand and a big book with the check on it before him, and he signed his name to that check. I took the check downstairs and called Mrs. Smith, and says,

"There's the doctor's signature on that check for a horse for Redwood. That is the last signature he'll ever put on paper; he's just alive."

So Redwood got his horse. Next day doctor was better and kept on getting better right along, and got up better than ever.

Along in the summer—that was as much as five or six months afterward—Redwood came up with the same horse, going to Bloomingdale. We had to go to Bloomingdale for our mail then; once a week we went after it. The doctor asked Redwood where he was going. He said he was going to Bloomingdale. The doctor said,

"I've got a little package there about the size of a cigar box that came from New York, and the charges are all paid on it. Could you bring that little box up for me?"

"Oh, certainly I could," says Redwood.

So he went down and brought the box up. Dr. Trudeau said,

"What are your charges?"

"Oh," he says, "give me a dollar and a half."

Dr. Trudeau came right to me and says,

"Paul, did you ever see anything like that?"

"You have got to pay the doctor," I said.

"You've got to pay the doctor. If you hadn't bought that horse you'd be dead now. It was buying that horse that saved your life."

EARLY HUNTING DAYS WITH DR. TRUDEAU

BY FITZ GREENE HALLECK

Dr. Trudeau was known in the Adirondacks from 1875 for the first five years of his residence here, not on account of his medical reputation but for his love of sport and his skill in shooting. He was an ardent fox hunter and in those early days he did little but shoot and fish.

In the fall of 1876 Dr. Trudeau came to Saranac Lake, which was then but a small

The great feature of Dr. Trudeau's shooting was its quickness and a moving target was his chief delight. Game, whether flying or running, rarely escaped his rifle and seemed to have smaller chance to escape when moving away than when standing still.

Dr. Trudeau was fond of hunting rabbits with a rifle, and a white Canadian rabbit streaking over the snow is no easy mark. I



DR. TRUDEAU AND FITZ HALLECK

hamlet, and he rented one of the guide's cottages, not far from where his present house now stands. It was then that I first met him. I had always been an enthusiastic hunter, and when the Doctor inquired if there was not some guide living in the village who loved to hunt, my name was mentioned. Thus came together two kindred spirits in their love for sport, whose friendship has lasted these many years.

remember one hunt when the rabbit was coming down hill with the dogs close behind him. He was taking his longest jumps when up went the Doctor's gun. We neither of us could see whether he had made a hit or not but when the first dog came up he picked up the dead rabbit thirty feet away.

One day I remember Dr. Trudeau was standing on a wood-road with a thick balsam swamp on the right. The dog was running

a rabbit in the swamp and I walked toward the Doctor hoping to see the rabbit cross the road. Closer and closer came the hound. Just at that moment a partridge was flashed and flew across the road. Quick as a flash the Doctor raised his shot gun and with the first barrel killed the partridge on the wing, then lowering the gun, with the second barrel caught the rabbit on the run before he had crossed the road. Only those who have seen a partridge fly and a rabbit run can appreciate this feat.

Sometimes I have seen the Doctor shoot a rabbit without fairly raising his gun to his shoulder so quick was his judgment and aim.

We used to have many a good fox hunt on the hill that in the old days was called Preacher Smith's or Jenkin's Hill but now has the more modern name of Mount Pisgah. One of the best runways led over the very spot where the main buildings of the Sanitarium now stand. It was so sheltered there that the Doctor could sit on the runway even in the coldest weather when the wind would have been unendurable in a more exposed spot. It was no doubt his familiarity with this hillside and his knowledge of its sheltered and beautiful outlook over the mountains that influenced him to locate here the first little cottage of the Adirondack Cottage Sanitarium.

One day I recall very clearly. I put out two dogs on the other side of the hill, getting up two foxes and starting each dog on his separate run.

The Doctor was standing right where the lower gate now is and when the first fox came in sight one shot finished him. The second fox was being driven by a dog that seldom barked but was a very fast runner, so that he had his work cut out for him to keep ahead in the race. This fox too headed down the hill through what is now the Sanitarium grounds. As I came in sight of the Doctor

the first fox had been shot and was lying not far away, but not dreaming a second fox was coming the Doctor had laid his gun against the gate post and had walked some twenty-five yards to pick up fox number one. As he picked him up he saw me waving and caught sight of both dog and fox number two coming straight toward him.

The fox turned and crossed the road below him, but by that time the Doctor had reached his gun and fired as the fox went out of sight. As usual, however, when he was in a hurry his aim was good and he bagged both foxes.

This was in the early days when there was little studying and much hunting. In the spring trout fishing held the Doctor's attention, in the fall came the deer shooting, and many a story could be told of the good shots that the Doctor made, when the big bucks were his game. But the winters were the best times of all for then there were plenty of rabbits in the swamps, white as the snow, that covered the ground, and then the fox tracks were thick on Jenkin's Hill. We had many good dogs, and the foxes kept them busy and gave us many a good run. Some day I might tell of how "Old Jeff" nearly was drowned following a fox on the thin ice on the river, or how "Old Watch" treed a fox on the side of Baker Mountain, but that would take another chapter.

Though the Doctor no longer indulges in such strenuous sport as fox hunting, he rarely misses a season when the deer hunting begins and he still more rarely misses his buck. Only last fall I stood by him when a big buck came out of the woods at twilight near Little Rapids. He had just started to get away when I found that the Doctor's hand had not lost its cunning. Up came his rifle to his shoulder, and the first shot found its mark, for the buck dropped in the woods but a few hundred yards from where he took his first hasty jump.

And I believe that we shall have many happy hunting days yet to come.

"The Good Luck Arrow"

(An old Indian superstition revived by Dr. E. L. Trudeau.)

By ALFRED L. DONALDSON

A lonely brave of limber, tapering length,
Loomed from the evening folds of damask light,
And seemed a keen-cut cameo of strength,
Carved on a dusky panel of the night.

He stood beside the Lower Saranac,
In that far land the Wilderness enshrines,
And listened to the echoes that gave back
The sobbing piccicato of the pines.

His hunter's eye was on the misty moon
That silvered slowly in a cloud-spun web—
He turned not at the wailing of a loon,
Nor saw the track a ten-tined buck had left;

But fitting his best arrow to his bow,
He sent it upward with a fervid prayer;
And smiled to think it reached the tangled glow,
Because it vanished in the moonlit air.

So did the childish Indians of yore
Pay homage to the Goddess of the Chase,
And think an arrow and the wish it bore
Would bring them luck by magic of some grace!

Years later came a white man to the spot,
Who aimed a white man's arrow at the moon—
And prayed that he might mend our human lot
By winning for mankind a deathless boon.

The prayer was granted—but a price was set;
Fulfillment was conditioned on the poise
Of that lone man, who toiled—and toiled yet—
In snow-hushed silence whence there comes no noise.

The hope of long ago now greets the eyes—
The darkness that is doubt has rolled away—
And now the massive walls of Trudeau rise
On heights that Faith has wrestled from Dismay.

The hard-earned increment of dreams is won—
To those who dare the gods grant any boon—
And, after all, the biggest things are done
By those who aim their arrows at the moon.

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The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

TRUDEAU

All great movements, whether social, political or scientific, are so complex in their beginnings that it is impossible to single out any one factor as the original cause in bringing them about. At the same time there is inevitably some personality to which, by common consent, mankind points as the pioneer and leader in those stages where random activity and suggestion first become crystallized and effective. In the great anti-tuberculosis movement in America that personality is undoubtedly Trudeau. It was he who, with that sensitiveness to new discoveries which is the mark of the born leader, first seized upon the possibilities of the startling announcements of 1882 and gave them practical application in this country.

When, after many years of slow awakening, the irresistible logic of the situation began to penetrate the public mind and produce the laws, institutions and general recognition which now we see on every side, the medical, and later the lay, public realized that a model of procedure stood ready at hand.

With quiet persistence Trudeau had not only tested the validity of the new teaching but had erected upon permanent foundation an institution to which all could turn for suggestion and example. He had planned along lines so sound that his fundamental methods are in use in every sanatorium which we now possess, worthy of the name. He had established his laboratory in the face of every conceivable obstacle and had

gathered about him a group of younger men as insistent upon the most rigid canons of work and service as himself.

It is doubtless to the Adirondack Cottage Sanitarium that posterity will point as Trudeau's great achievement. But to those who are actively engaged in the fight against tuberculosis it is probable that certain phases of his character have meant more and accomplished more. To those who know him—and who does not?—his striking qualities have been his high idealism and his un-failing optimism. Struggling against handicaps that have been so often described, he has never faltered for an instant and, so far as the world knows, has never for an instant doubted the ultimate success of his own and his colleagues' efforts.

When the crusade against tuberculosis grew to national proportions and in its organization met the clash of interests and differences of opinion which seem the inevitable accompaniments of such development, there was always one point about which the forces gathered with unanimity and that was the frail yet virile figure at Saranac Lake.

But more than high ideals and optimism, more than a singularly winning

personality, is needed to account for the position which Trudeau occupies. There should never be overlooked the extraordinary mental poise which he has always shown. Pioneer as he is, he is also the conservative. Enthusiast always, he has yet insisted upon the most rigid observation, experimentation and research. Never swayed by professional or public clamor, he has pursued through all these years his calm, observant way and whether in bacteriology or therapeutics has not once taken a position without a carefully tested foundation of fact upon which to stand. It is this trait which gives the stability to his enviable position.

It is not often granted to a man to see the results of his early labors develop into a great movement such as the campaign against tuberculosis has grown to be. This has been his happy fortune and we congratulate him. But still more deeply we congratulate the country which he has served so well. Trudeau is a national asset of a type of which we have too few. Long may he be spared to watch and stimulate by his very presence the tremendous force which he first set in motion!

NATIONAL ASSOCIATION MEETING

Interest in the sixth annual meeting of the National Association for the Study and Prevention of Tuberculosis, held in Washington on May 2 and 3 centered for the most part in the discussion of the relation of bovine to human tuberculosis, especially in regard to the pasteurization of milk. It was not surprising therefore that the association should express itself definitely on both of these problems in formal resolutions adopted by the entire session. The resolution in regard to pasteurization of milk placed the association on record as favoring clean milk and also as declaring that pasteurization was valuable and useful, where certified milk could not be obtained, but that this process should be carefully supervised. The same resolution however expressed the conviction that only tuberculosis of the glands and lymph nodes in children, and that rarely, is caused by infection from bovine sources. This latter opinion was demonstrated graphically by Dr. William H. Park, the head of the laboratories of the New York City Department of Health, in a paper before the pathological section on "Types of Tubercle Bacilli Found in Human Tuberculosis and Their Relative Importance."

Dr. Park demonstrated from a most careful study of over 400 cases of tuberculosis of all types chosen at random that only $2\frac{1}{2}$ per cent of all tuberculosis in New York City comes from infected milk, butter, or meat, that is, from bovine sources. This small percentage, moreover, is found mainly in children. In other words pulmonary tuberculosis among adults is contracted solely from human beings, and is not the result of impure milk or food. He showed, too, that his conclusions in New York were confirmed by about 500 cases studied in other parts of the world.

The practical value of these conclusions for the anti-tuberculosis worker will lie in renewed attention and more direction of energy against the spreading of tuberculosis from man to man. Instead of diverting the campaign against tuberculosis into other fields the anti-tuberculosis forces may now confidently attack the causes that breed tuberculosis among men, knowing that they are on the surest road to victory.

Among the other papers of most popular

interest was that of Dr. Lee K. Frankel of New York City, on "Insurance Against Tuberculosis." Dr. Frankel pointed out that in his opinion a voluntary insurance system against tuberculosis or against sickness was impracticable and doomed to failure. Instead however, of compelling the payment of premiums on the part of employees, it would be perfectly feasible and constitutional, he argued, to have a special tax based on the payroll of employers of labor, this tax to be fixed and graded according to the amount of the payroll and probably also according to the risks of the industry with reference to tuberculosis. Thus, for instance, dusty trades would be required to pay a larger proportional tax than trades where the risk of getting tuberculosis was not so large. This tax would create a fund from which tuberculous employees could be cared for. This would practically mean insurance against tuberculosis, for, while the individual employer of labor in most instances would be unable to care for his tuberculous employees, by pooling his interests with those of thousands of others an insurance fund could be created, which would provide amply for sanatorium and hospital treatment of all tuberculous employees. This tax would, of course, have to be levied on all employers of labor, including the State, the city and the federal government. This fund, moreover, would have to be administered locally. It would be impracticable to administer it on a State-wide basis. Probably the municipality, or in some instances the county, would have to be the unit.

Dr. S. Adolphus Knopf of New York excited a large amount of interest in his paper on "State Phthisiophilia and State Phthisiophobia." He held that the action of the Nebraska Legislature at its last session, in passing a law which requires that any indigent consumptive who is treated at public expense must submit to the vaccine-therapy, a serum system of treatment, was unjust to the consumptive, because this course or method of treatment had not yet gained universal recognition from the medical profession. In contrast to this demonstration of State paternalism toward the consumptive, or "phthisiophilia," Dr. Knopf cited an instance of

extreme "phthisiophobia" on the part of the Oklahoma Board of Medical Examiners, who refused to grant a license to any physician who has had tuberculosis, or has nursed or lived in the house with a consumptive for three years before his application. Dr. Knopf's scathing condemnation of these two unjust practices was the subject of two resolutions adopted by the association.

Robert J. Newton of St. Louis read a convincing paper before the sociological section on "Enforcement of Anti-Spitting Ordinances in the United States." He said that while about 25,000,000 people in the United States were forbidden to expectorate in public places, in 1909 there were 3,421 arrests for violation of these ordinances, and of this number 2,513 came from New York City. Mr. Newton made a strong plea for the appointment of special officers whose business it should be to do nothing else but enforce the anti-spitting laws.

In a paper on "The Problem of Employment of Tuberculosis Cases," Dr. A. M. Forster of Louisville, Ky., made a strong plea for the colonization of consumptives discharged from sanatoria on waste government land in the southwest. Dr. C. P. Wertenbaker of Norfolk in discussing Dr. Forster's paper held that farm sanatoria could be conducted at little or no expense by every city, town or village in the United States. Dr. W. J. Vogeler of Yonkers and Dr. David Russell Lyman of Wallingford, Conn., contended, on the other hand, that the majority of the tuberculosis sanatorium cases who come from the city are better off if they return to the work which they had before they were taken sick. The worry and loss of money incident to adjusting one's self to a new job more than offset the value of the outdoor features or the other desirable factors.

Two other papers of particular interest were by James Jenkins, Jr., of Brooklyn on "A Budget and Program for a Local Anti-Tuberculosis Campaign," and by Dr. Henry F. Stoll of Hartford, Conn., on "The School Child and Tuberculosis—a Plea for Prevention."

The following officers were elected for the ensuing year: Dr. William H. Welch, Baltimore, President; Dr. Victor C. Vaughan, Ann Arbor, and Dr. George Dock, New Orleans, Vice-Presidents; Dr. Henry Barton Jacobs, Baltimore, Secretary; and Gen. George M. Sternberg, Treasurer.

The resolutions which were adopted are as follows:

RELATING TO A DEPARTMENT OF HEALTH

Whereas, Hundreds of thousands of human lives are lost annually from tuberculosis and other preventable diseases and

Whereas, There is great need of some agency of national scope whose functions shall be the investigation of problems of public health, the dissemination of information relating thereto, and such other duties pertaining to public health as may properly fall within the field of Federal authority, and

Whereas, The work of this character which should be undertaken by a national agency is beyond the resources of private effort and should have not only the larger resources, but the dignity and prestige of Federal authority; and

Whereas, A bill has been introduced in Congress by Senator Owen and Representative Craeger establishing a Federal Department of Health in which are to be brought together all federal agencies now dealing with these subjects and by which should be undertaken such new duties relative to public health as the National Government might properly undertake, therefore;

Resolved, That we very heartily endorse the general principle of the Owen-Craeger bill and place on record our conviction that its enactment would be of great service in the prevention of tuberculosis, and of other infectious and preventable diseases.

RELATING TO PROTECTION OF THE MILK SUPPLY

1. Resolved, That a thorough, efficient, and continuous official supervision of dairies and herds and of the milk from the dairy to the consumer is of the first importance in securing a clean and pure milk supply, which is essential to public health.

2. Resolved, That the production and handling of milk under such satisfactory sanitary conditions as to insure its complete reliability (i. e. the production of what is known as certified milk) at the present time unfortunately increases its cost to such an extent as to make the use of such milk for general consumption impracticable.

3. Resolved, That the efficient pasteurization of the general milk supply (excepting certified milk) when supplementing dairy inspection and applied to milk from inspected dairies and done under official supervision is desirable for the destruction of the ordinary

micro-organisms of fermentation and putrefaction and as an additional protection against possible infection by typhoid fever, scarlet fever, diphtheria, tuberculosis, and possibly some other specific infectious diseases.

4. Resolved, That pasteurization of milk for sale should not be permitted except under official supervision and on conditions definitely prescribed by competent sanitary authorities; and should not be permitted as a method for the preservation of old or dirty milk.

5. Resolved, That milk intended for infant feeding should be considered apart from that intended for general consumption; and should be certified milk when obtainable.

6. Resolved, That in the opinion of this association it has been proven, apparently, that a small percentage of the cases of non-pulmonary human tuberculosis, especially tuberculosis of the lymph nodes in children under five years of age, is due to infection by tubercle bacilli of bovine origin.

RELATING TO NEBRASKA LEGISLATION

Whereas, the State of Nebraska has recently passed a law making it obligatory for hospitals and sanatoria receiving tuberculous patients supported by the public to use treatment by immunization (vaccine therapy); and

Whereas, In the opinion of the members of this association the present state of knowledge of specific immunization and vaccine therapy in tuberculosis does not justify any State in enacting such legislation; therefore

Resolved, That the National Association for the Study and Prevention of Tuberculosis deplores the above named act of the State Legislature of Nebraska as most unwise, and wholly unjustifiable. Be it further

Resolved, That the executive secretary of the association transmit a copy of these resolutions to the Governor of the State of Nebraska and the Speakers of the Senate and the House of Representatives of that State.

RELATING TO OKLAHOMA LEGISLATION

Whereas, The Board of Medical Examiners of the State of Oklahoma refuses to grant licenses to physicians afflicted with tuberculosis; and

Whereas, All applicants for such a license must subscribe and swear to a so-called tuberculosis affidavit in which they must not only declare that they are not suffering with tuberculosis in any form but also swear that they have not, within the last three years, lived in the house with or nursed any one suffering from said disease;

Whereas, In the opinion of the members of this association such action of the State Board of Medical Examiners of Oklahoma is not based on sound scientific or economic considerations; and

Whereas, It is the conviction of the members of this association that neither the careful tuberculous physician nor the well trained tuberculous patient pursuing his occupation should be considered a menace to society, Be it therefore

Resolved, That this association deplores the action of the State Board of Medical Examiners of Oklahoma as unjustifiable and prejudicial to the best interests of the community, and

Resolved, That the executive secretary transmit a copy of these resolutions to the president and secretary of the Oklahoma State Board of Medical Examiners and to the Governor of that State.

RELATING TO PLAYGROUNDS

Resolved, That this association observes with great interest and satisfaction the marked progress throughout the United States and particularly in the District of Columbia during the past year, of the playground movement; and expresses the earnest hope that the National Congress will make adequate appropriations for continuing and extending in the District of Columbia these opportunities for healthful open air exercise and play.

RELATING TO HOUSING CONDITIONS

Resolved, that we urge upon municipalities a study of housing conditions with special reference to tenement and cheap lodging houses and urge a vigorous effort to improve congested districts, believing that such improvement will decrease the tuberculosis death rate.

NOTES AND NEWS

REORGANIZATION OF PHIPPS INSTITUTE

Plans for the reorganization of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis as a department of the University of Pennsylvania have been accepted by a committee appointed for that purpose. The plans comprehend a laboratory and clinical and sociological departments. The laboratory is to pursue pathological investigations with a view to discovering a remedy for the treatment of tuberculosis. The clinical department will conduct a hospital and a dispensary, but will limit the patients to be treated to those needed for clinical study and will seek to shift the burden of general care to the municipality. The sociological department will confine its efforts to a comparatively small district of Philadelphia, where by intensive work it will demonstrate what a local anti-tuberculosis campaign may accomplish. The director of the laboratory will be Dr. Paul Lewis, formerly of the Rockefeller Institute; Dr. H. R. M. Landis, of the old Phipps Institute staff will head the clinical department, and Alexander M. Wilson, former Secretary of the Boston Association for the Relief and Control of Tuberculosis, the sociological.

Mr. Wilson's program, which is of particular interest to readers of the *JOURNAL OF THE OUTDOOR LIFE*, is given in full:

I. Clinical and social work in allotted district.

Make an effort to get in touch with all cases in the district.

Make the work intensive rather than extensive.

Use existing city, state and private hospitals and sanatoria for all patients who can be admitted, doing careful follow-up work on their discharge.

Cultivate open air sleeping and living on the part of the out-patients, providing sleeping balconies if necessary.

Work with the Health Department, the house owner and tenant in making each house lived in by a patient clean and wholesome.

Organize as many "classes" as possible, securing their support by churches and clubs.

Interest individuals, churches, societies and clubs in supplying sleeping balconies, extra diet, etc., for individual cases.

Secure volunteer visitors to work under direction of the nurses in the "classes" and in following up "arrested" cases.

Bring all the members of the patient's family to the clinic for examination.

Work in conjunction with school physicians and nurses in having suspected cases examined.

Try to improve the patient's home economics by teaching methods of preparing simple palatable dishes, employing a dietitian if nurses lack training in this direction.

II. Social Research.

Make thorough study of the life, habits and environment of the people in the district, with a view to improving them in respect to features that conduce to tuberculosis.

Study of dietaries of typical families of the different nationalities in the district.

Investigate ventilation and sanitary condition of schools, factories, bakeries and shops in the district.

Study the types of houses in the district, making intensive investigation of housing conditions in worst blocks.

Collect all the statistics available on mortality, morbidity, birth rate, infant mortality, race composition, etc., for the district.

Make pin maps showing location of all the cases in the district that have been known to the institute since its beginning. Similarly, for all deaths from tuberculosis occurring in a ten year period.

III. General Educational Work.

PHILADELPHIA. Let the institute stand to the city at large in the relation of an active, aggressive anti-tuberculosis society or committee in carrying on an effective propaganda for the education of the public in preventive measures.

PENNSYLVANIA. The institute should serve as a model and an inspiration to local anti-tuberculosis societies.

THE NATION. The work of the institute should be so vital and significant that every one interested in the movement must visit it frequently. No one coming from a distance to the annual tuberculosis conference in Washington, for instance, should be willing to return home without a visit to Philadelphia, where the most intensive piece of work in the whole country will make of the institute a living, growing tuberculosis exhibit.

IV. Influencing Public Action.

The institute should take upon itself the obligation to arouse the city government to deal with tuberculosis and its causes in a large way. There ought to be effective registration, supervision and disinfection by the Health Department; adequate building laws and tenement inspection; adequate facilities for the care of advanced patients in hospitals; proper teach-

ing of hygiene in the public schools; thorough medical inspection of school children, with an adequate corps of school nurses, a clean milk supply, etc.

With the various states developing broad policies for dealing with tuberculosis involving large expenditure of money and effort, the institute should by its example and by every means in its power wield an influence that will be effective in guiding this expenditure along useful channels.

The Institute will be governed by a board of nine directors, of which the three department heads are members, and Dr. C. C. Harrison, Provost of the University is president, ex officio. The other members of the board are: Dr. John G. Musser, for the medical council; Dr. R. G. Le Conte, of the board of trustees; George E. Gordon, representing the donor, and Dr. Charles J. Hatfield, of the Pennsylvania Society for the Prevention of Tuberculosis. Mr. Wilson will be the superintendent or executive head of the institute.

Members of the advisory council, which will hold a meeting once a year, are as follows: Pathological department: Dr. William H. Welch, Baltimore; Dr. Theobald Smith, Boston; Dr. H. Gideon Wells, Chicago; Dr. Simon Flexner, Rockefeller Institute, New York. Clinical department: Dr. James A. Miller, New York; Dr. Lawrason Brown, Saranac Lake, N. Y.; Dr. Joseph Pratt, Boston; Dr. Henry Baird Favill, Chicago. Sociological department: Samuel McC. Lindsay, New York; William H. Baldwin, Washington; Dr. Hermann M. Biggs, New York; Dr. Samuel G. Dixon, Harrisburg.

It is intended to make wide use of the institute for purposes of study so every facility will be extended to students of the University to obtain information in the care and treatment of tuberculosis. As specialists from all parts of the world will visit the institute and deliver lectures, unusual opportunities for the work of research will thus be given. As the committee states it, "The Institute is to be the great national clearing house of tuberculosis problems."

The Henry Phipps Institute was founded in 1903 by Henry Phipps. Its work was organized and directed until a few months ago by Dr. Lawrence F. Flick, under whose guidance it attained world-wide recognition as a center of study and education. With the reorganization of the institute as a part of the University of Pennsylvania, Dr. Flick retired to devote his time to the White Haven Sanatorium and his own practice.

CLEVELAND'S HEALTH OFFICER'S PROGRAM

The Cleveland Anti-Tuberculosis Association recently sent the new superintendent of the Health Department of that city, Dr. Ford, on a visitation and inspection tour of health

departments in eastern cities, particularly with reference to the methods of tuberculosis prevention. That this experiment has been worth while is evidenced by a preliminary report sent shortly after his return by Dr. Ford to Mayor Baehr. Part of the report follows:

OBJECTS: To minimize the number of cases of tuberculosis in Cleveland.

IDEALS: For the public to be intelligently informed as to the ways of preventing and treating the disease; to get in touch directly or indirectly with every case; to be absolutely certain that every open case takes proper precautions against infecting others; to be absolutely certain that every closed case lives so as not to become an open one. Isolate all advanced cases in hospitals. It should be borne in mind that this may require further legislation. To seek out all incipient cases and place them under modern open air treatment, so far as possible.

METHODS: Establish and place dispensaries under the direction of the health department; establish a nose and throat, dental and orthopedic clinic; establish in public gymnasias and bathrooms, classes in medical gymnastics; develop a more complete supervision of the patients in their homes with the assistance of paid workers and the visiting nurses; obtain hospital accommodations for every case that needs it, and enforce disinfection and cleansing after death or removal.

EDUCATION: Distribute circulars containing simple statements of the few things necessary in the prevention and treatment of tuberculosis, printed in various languages; continue an active campaign which shall include talks before every church, club and organization in the city; obtain a travelling tuberculosis exhibit, illustrating local conditions and keep it going; endeavor to have employers pay board of infected employes while at sanatoria; advertise the hours during which the clinics are held on pay envelopes and by whatever means obtainable; urge and co-operate with the board of education in establishing outdoor schools for pretuberculous children as well as for tuberculous children; encourage the distribution of milk by appropriately organized societies; secure legislation that may be necessary for the establishment of tenement house inspection and regulation.

CALIFORNIA PUBLIC HEALTH LEAGUE

The California Public Health League was organized recently. The League proposes to be a sort of clearing house for all matters in the state pertaining to public health. With it are affiliated about a dozen societies doing work along this line. It is not intended to destroy the autonomy of the several special organizations, but to work out a policy and method of procedure that will be for the good of all. The question of membership, finances, etc., have not been worked out.

JAPAN IMITATES WORCESTER

Following the plan adopted by a group of Worcester, Mass., manufacturers, whereby they have agreed to care for cases of incipient tuberculosis in their employ free of charge, Dr. Melvin Overlock, the originator of the movement, has received a letter from N. Takatsnji of Kobe, Japan, stating that the Kanegafuchi Spinning Co. of that city, employing about 23,000, will work out the same plan. Mr. Takatsnji was one of the Japanese Commissioners who visited the country last fall. During his tour he visited Worcester and was much impressed with the plan of each factory caring for its tuberculous employees.

OREGON'S SANATORIUM

Work has been begun on the remodeling of the former State Mute School at Salem, Oregon, which has been turned over to the State Tuberculosis Commission for a tuberculosis sanatorium. It is planned to have the sanatorium ready for occupancy in July, with a capacity of about 100 beds. This will be the first State Sanatorium west of the Rocky Mountains. The superintendent will be Dr. H. J. Clements.

NEW OUTDOOR SCHOOLS

Twenty open air school rooms, similar to the one now in operation at public school No. 21, will be opened in New York next fall. The classes, not larger than 20, are primarily for anaemic and pretuberculous children. In Cincinnati three similar school rooms are being constructed to open in the fall. The Montclair, N. J., Board of Education has voted \$3,000 for an open air school.

NEW JERSEY ASSOCIATION MEETS

The annual meeting of the New Jersey Association for the Prevention and Relief of Tuberculosis was held at Newark on May 12th. The following officers were elected: President, Dr. Gordon K. Dickinson, Jersey City; first vice-president, Dr. William G. Schaeffer, Lakewood; second vice-president, Dr. B. Van D. Hedges, Plainfield; honorary vice-presidents, Governor Fort, the Rt. Rev. James A. McFaul, Trenton; Woodrow Wilson, Princeton; treasurer, Thomas H. Williams, Jersey City.

Mr. William C. Smallwood, the executive secretary, reported a large gain in hospital provisions during the year; the formation of three new committees and the reorganization of two others; a considerable amount of legislative activity, resulting in the securing of a county hospital act, a better registration law, and a new law regulating sanatorium locations; and also a large amount of educational work, including exhibits, lectures, conferences, and mass meetings.

Magazines for Women

The Journal of the Outdoor Life has arranged with the Health Department of the General Federation of Women's Clubs for the publication during this year of articles by recognized authorities on phases of anti-tuberculosis work in which women are particularly active. No woman should miss these important articles.

Every woman whose ideal corresponds with that of the General Federation of Women's Clubs, "Service," should also receive regularly at least one of the Women's Club Magazines. We have arranged clubbing rates as follows:

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	\$1.50	\$1.00
Journal of the Outdoor Life	\$1.00	
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All three magazines		\$1.75

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Tuberculosis Directory

The National Association for the Study and Prevention of Tuberculosis in co-operation with the Russell Sage Foundation, have issued a volume entitled

THE CAMPAIGN AGAINST TUBERCULOSIS IN THE UNITED STATES

Including a Directory of all Institutions and Associations Dealing with Tuberculosis in the United States and Canada, compiled by PHILIP P. JACOBS

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Sanatoria, Hospitals, and Day Camps in the United States and Canada, Hospitals for the Insane and Penal Institutions Making Special Provisions, Dispensaries and Clinics, Tuberculosis Classes, Associations and Committees for the Study and Prevention of Tuberculosis, Typical Forms of Organization of Associations, Legislation, Typical Laws.

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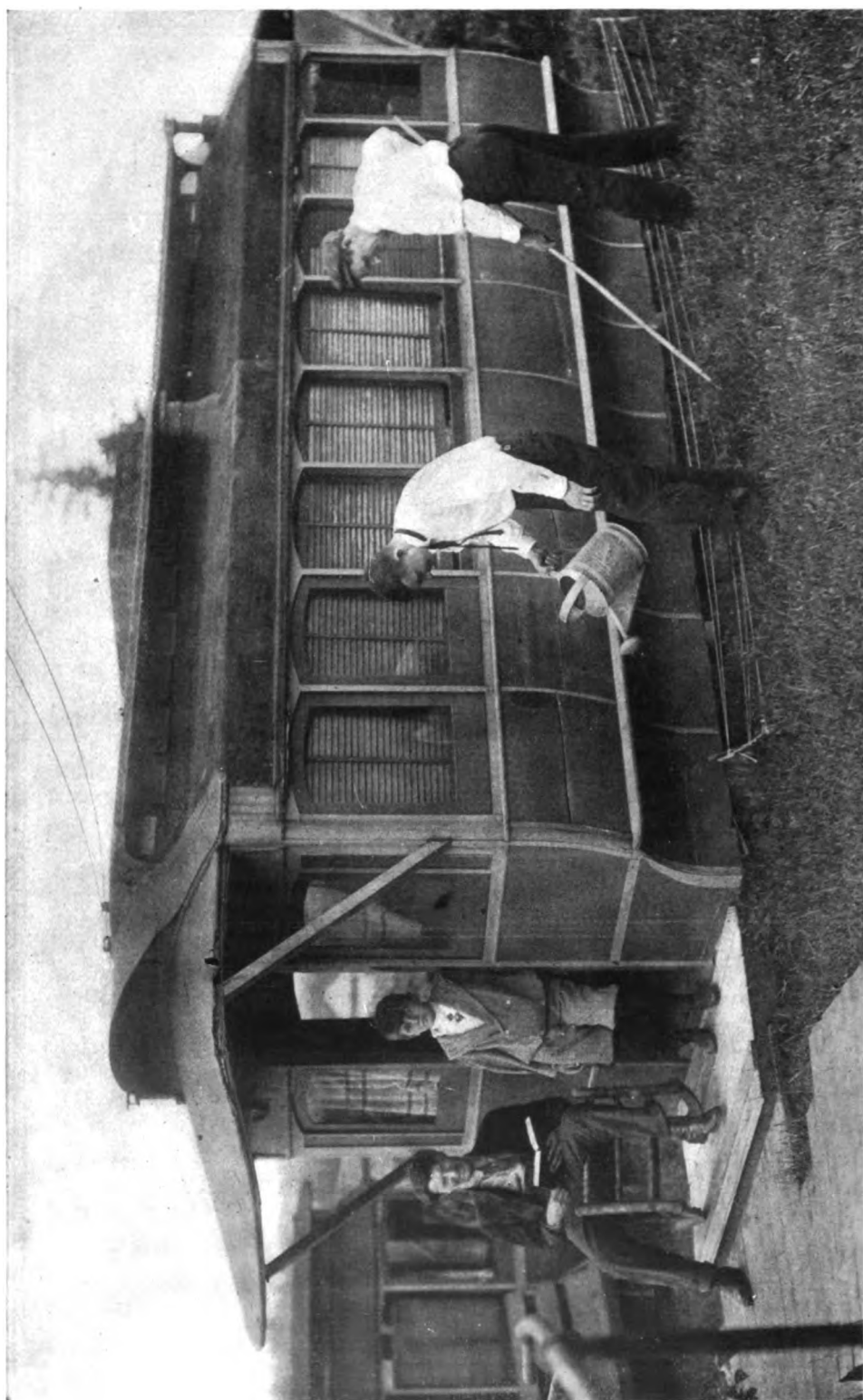
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JOURNAL OF THE OUTDOOR LIFE

VOL. VII

DECEMBER, 1910

No. 12

HEALTH IN THE SOUTHWEST*

WHAT THE PATIENT ENCOUNTERS AND ACCOMPLISHES IN THE DRYER SECTIONS

BY BURLE J. JONES

The average physician, who invariably has some cases of tuberculosis and who is a student of climatology, frequently recommends to his patients some location where pure air and sunshine are so abundant as to be unavoidable; or insists upon it as a last resort when the patient is on the verge of dissolution. Often, however, this advice is given only after the patient's financial resources are exhausted. This last practice, reprehensible as it is, is by no means always the fault of the physician. It is a part of professional pride to try every possible means of bringing about a cure before giving the sufferer up to other hands. The natural ability of the patient to withstand the disease, and his determination to be cured even though he must change his mode of living at home and be more or less isolated from his family, are also factors to be considered.

For such patients the Southwest has become a great reservation. There are communities there, and some of them large ones too, in which the question as to whether or not a newcomer is tuberculous is always uppermost in the mind when one meets a stranger, though

it is seldom voiced. It is a predominating question, because in some of these communities seven-tenths of the adult population are there to find health for themselves or some member of their families, or both.

The assertion that seven-tenths of the population are or have been diseased, a statement which has been verified, would lead to the impression that such a community must be an enormous hospital. Yet in the Salt River Valley of Arizona, one of the places where the above ratio actually obtains, eighty per cent. of the adult population are in business, active, energetic and self-supporting. Few industrial communities care to advertise their surroundings as a natural tuberculosis sanatorium, fearing to become liable for the support of the army of indigents which would respond to such an invitation and to their own liability to infection from them. Fearing to do injury of this sort I have taken the matter up with prominent residents and practicing physicians and have determined definitely that less than one per cent. of those affected have contracted the disease in these resorts. For the indigents it is a long and perilous journey, so costly as to be almost prohibitive; and there is small opportunity for the proper care and treatment once they have arrived.

Some physicians and tuberculosis experts declare that climate need not be considered in seeking a cure for tuberculosis, yet they recommend a maximum exposure to sunshine and fresh air and a minimum liability to colds, pneumonia and similar affections that result from extremes of temperature, impure and

* It should be restated here that the JOURNAL OF THE OUTDOOR LIFE is not responsible for the views expressed by its contributors. Discussions of climate and health resorts in our pages have heretofore brought us frequent criticism. Nevertheless we are convinced of the propriety of such discussions and shall from time to time give space to those which seem valuable. Of particular interest are those giving the honest and unprejudiced information which the health seeker needs.—*Editor.*

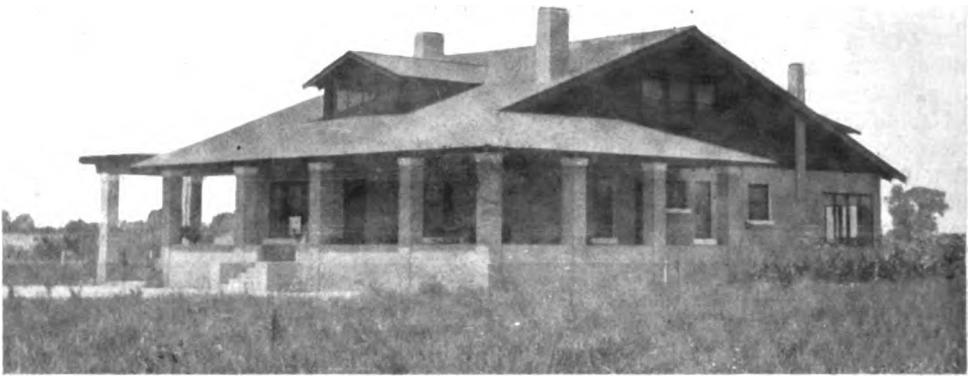
damp air and insufficient protection against the elements. Assuming this to be true, as it undoubtedly is, it follows that any locality where the climate is most dry and most equable, and where the patient requires the least protection against extremes, is, by that much, more desirable as a health resort.

Climatic Conditions of the Southwest

How nearly the arid southern climate approaches to perfection in these respects may be learned by reference to the following data, all verified, and taken largely from the reports of the weather bureau for Phoenix, though it would be equally applicable to many other points similarly situated with regard to altitude and storm infrequency.

represents fairly the temperature of bodily comfort and accounts for the fact that heat prostrations are practically unknown. During the month of July just passed the sensible temperature ranged between sixty-six and seventy-six degrees, yet the month was famous for the number of its heat prostrations elsewhere.

The appended table of annual mean temperature, annual mean dew point, annual mean humidity, and annual percentage of sunshine, extracted from the annual report of the chief of the weather bureau, for the year 1905, gives, succinctly, the principal features relating to the moist conditions of the air at the respective stations. It is mainly intended to show the comparisons of humidity and sunshine as ob-



NOTE THE UPSTAIRS SLEEPING PORCH ON THIS SOUTHWESTERN HOUSE

The average temperature of the spring months is 61.7 degrees, of summer 87.8 degrees and of winter 53.2; an annual average of 69.9, which is as near to our comfortable, school-room temperature of seventy-two degrees as may be had anywhere out of doors. "Not being in the path of storm frequency, the sequence of weather is more uniform than in more northern latitudes. The rainfall is small; there is an absence of clouds; insulation by day and radiation by night are both strong and rapid. High day temperatures are invariably accompanied by low humidity, which are scarcely comparable with high temperatures and excessive humidity such as are experienced at higher altitudes or near the coasts." The average annual humidity for twelve years ending with 1907 was 35.2 per cent. Repeated experiments have shown that when the thermometer registers 105 degrees air temperature, the wet-bulb or sensible temperature is sixty-two to seventy degrees. This

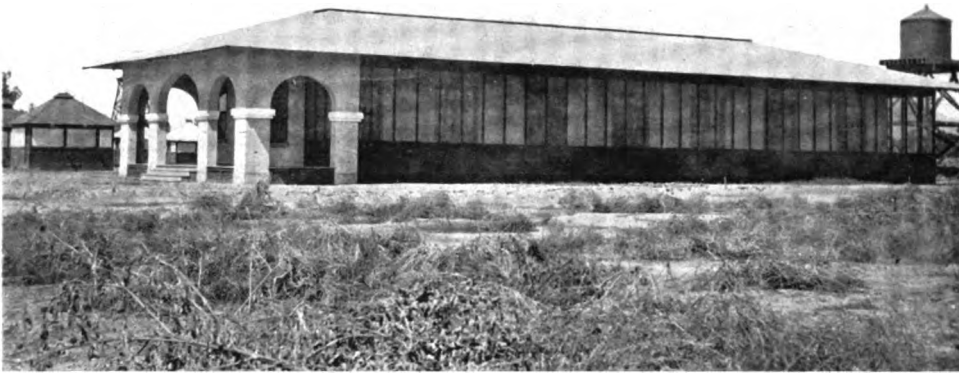
served in the eastern, the central and western states with those of the Salt River valley:

STATIONS	Mean annual temperature	Mean annual dew-point	Mean annual relative humidity	Annual percentage of sunshine
	Deg.	Deg.	Pct.	Pct.
Boston.....	40	38	69	60
Charleston.....	66	57	80	63
Chicago.....	48	40	77	61
Cincinnati.....	54	42	68	58
Denver.....	49	31	58	61
Flagstaff.....	44	30	60	67
Los Angeles.....	63	50	70	67
Memphis.....	60	50	71	55
New Orleans.....	60	50	78	54
New York City.....	52	43	74	61
Oklahoma.....	58	48	74	63
Philadelphia.....	54	42	67	60
PHOENIX.....	70	44	50	78
Portland, Ore.....	53	42	72	48
St. Louis.....	55	44	72	58
San Francisco.....	56	47	77	62
Washington, D.C.....	54	44	72	62
Yuma.....	72	48	50	..

Some doubt has been expressed as to a certain amount of physical discomfort experienced at different temperature readings, with high and low humidity. It is a notable fact that high temperature accompanied by high humidity, causes rapid perspiration, enervation, lethargy and prostration, while high temperature and dryness of the air have an exhilarating effect upon the human system. Low temperature with low humidity are both wholesome and invigorating, while low temperature with dampness are debilitating and injurious.

This report shows an annual sunshine record of eighty-three per cent., January being the lowest month in the year, yet having seventy-three per cent. This amounts to something like 234 days of clear weather in a year. There are few points except in the Southwest where a pure, dry air can be had at an eleva-

out of doors than in and the great habit of out-of-door living grows upon new-comers so completely that even in winter they prefer to sleep with homes wide open. In the summer he is indeed an alien who will allow himself to sleep within doors. Unusual and unique arrangements of sleeping apartments are in evidence in town and country. In the former the beds are usually on screened porches, on elevated platforms surrounded by screen wire, or under the trees in the yards. In the country the upper floors of tank towers are often utilized, but generally the entire family sleep in the open beneath the ever present shade trees during the summer months. In the winter the homes of both rich and poor provide ample ventilation, which is freely used. In this environment there is no opportunity for the tuberculous to avoid their duty to them-



A SOUTHWESTERN HOSPITAL FOR ADVANCED CASES OF TUBERCULOSIS

tion of only a thousand feet. Again, astronomical observations made here show an atmosphere so free from floating fog or dust that the most difficult photographs may be taken, such as are only possible at one or two other points, one of them being in Peru at an elevation of 14,000 feet.

Outdoor Living in the Southwest

In more rigorous climates the physician's great problem is to compel patients to stay in the open air. Considerable clothing is necessary for bodily comfort and the means to secure it are not always available. Further, it is well nigh impossible to break up the regular order of living, the patient being unwilling to separate himself from the family and the regular routine. In this southern climate fresh air is the religion of the community. Natural conditions invite it and public sentiment insists upon it among both sick and well. It is generally more comfortable

selves. The best way to humor their sickly bodies is to follow the line of least resistance, which is here the highroad to health. In the winter the thermometer ranges at its lowest to between thirty-five and forty-five degrees and seldom falls to the freezing point. There will not be ten days during the entire winter when one cannot go about comfortably during the day without a coat, and overcoats are almost superfluous except for evening and morning use.

In the matter of housing patients there is every possible variation. Some go directly into the desert, taking burros to carry their bedding and cooking utensils, which are much the same as those used by prospectors; in fact an equipment of this sort strongly resembles a party starting out to look for minerals. Such a course is naturally only fit for those who have been previously accustomed to camping and out-of-door life. There are some remarkable cures credited to this sort of living.

Others who are still capable of work have gone into offices as bookkeepers, real estate salesmen, bank clerks, barbers, store clerks or clerks in outdoor or indoor cigar or refreshment stands. In fact, those capable of physical activity may be found in every possible occupation in town and country. Many of them have gone straight forward to recovery, while others have overtaxed their strength or otherwise failed and been compelled to devote themselves entirely to the business of getting well. Of course all occupations are limited to the needs of those to be served, and he who seeks work is at a disadvantage on account of harboring a disease which his employer fears for himself and his customers. He is also placing himself at a disadvantage by overtaking his strength and living improperly.

The great question everywhere is that of housing those who are devoting themselves to

and only sufficient canvas for free ventilation. This has been brought about by the requirements of comfort both in summer and in winter. The more substantial roof keeps the structure cooler in the sun and holds heat better in cooler weather. It is desirable that the patients should have a morning and evening fire in winter. Though they may sit indoors or go about outside during the warmer hours, it is not necessary that they should suffer bodily discomfort at any time of day in order to get their full quota of fresh air.

Many of the "camps" are provided with a central dining hall where all patients take their meals and where the diet is strictly according to the needs of the patients. It is one of the offices of those in charge to keep the colony as cheerful as possible, for there is nothing more detrimental to the tuberculous than to become morbid in brooding over their trouble and discussing it with fellow sufferers.



ABUNDANT PORCH ROOM IS CHARACTERISTIC OF SOUTHWESTERN HOUSES

the business of regaining health. During the summer they may take any reasonable liberty. The patient may go camping if his strength permits, or even spend a vacation in the mountains or at the seashore. In the winter substantial shelter is a more important matter. Tuberculosis "camps" are found everywhere, in the city and in the country, in the fields and on the desert, but their number and capacity is far insufficient for actual needs. Houses of this sort are also built by homesteaders and property owners, purely for their advantages in the matter of cheapness combined with comfort and convenience. Canvas and screen wire are the characteristic features. The former makes a most convenient portable wall, can be lifted to admit air and sunshine and closed against wind and rain, and to a great extent against cold; and the latter is a necessary aid to comfort by excluding house flies and other insects.

The old houses with both roof and sides of canvas are being rapidly superseded by more comfortable abodes with shingle roofs

The cheaper hotels and lodging houses are the blight of this great country. It may be said fairly that these are the source of at least a part of the one per cent. of infection which takes place here. They are not properly ventilated in many cases and, still worse, they are not warmed evening and morning. There is no provision for artificial heat and the consumptive shivers, coughs and expectorates, thus aggravating his own condition and laying a trap for those who follow.

Maintenance

The question of maintenance is one of grave importance where a disabling disease is concerned. With tuberculosis it is even more acute than with others, for tuberculosis is primarily a scourge of the poor. Those who arrive without means are at a disadvantage which it is often impossible to overcome. The charities devoted to this work are, of course, overcrowded, as are also the few homes established and maintained by private donations.

There are camps and hospitals where patients will be taken who can only afford to pay their board, housing and medical attendance being provided free. It is needless to say that these, too, are fully occupied and compelled to turn away many cases every year. Where patients are accompanied by able-bodied members of their families, they are generally able to get on very well for there is likely to be employment of some kind for them by which a living can be earned. If their means will allow them to secure land and become producers, the problem is greatly simplified, as it is also if they are able to enter any sort of remunerative business.

Cost of living is not unusually high and in agricultural communities there is an ample supply of milk, eggs and other foods which go to make up the diet of the tuberculous.

The patient who comes alone and can reckon on an income of \$60 per month for two years

should go to places where they can secure housing and attention suited to their needs. As one becomes acquainted and meets those who have recovered and who are in active work, the idea of restored health comes to possess him and he goes forward with this stimulus constantly urging him on to recovery. He sees himself no longer as an invalid and an outcast, but once more back among those who are active and earning. And so he works constantly with this goal in view.

Medical Attention

To many this is one of the most doubtful and uncertain features of the pilgrimage to the Mecca of the Southwest. They know their home doctors and have confidence in their skill. But the western physician lives and works in a land where things are supposedly crude and his fancied occupation is chiefly at-



COMPARE THE OUTDOOR AND INDOOR SPACE COVERED BY THIS ROOF

is well provided for and should be able to get anything necessary for recovery unless quite helpless and requiring unusual medical attention and nursing. Eighteen hundred dollars is indeed a small sum to pay for a human life, but to thousands of those afflicted with tuberculosis it is an impossible sum.

How New-Comers are Received

Much of the brain and brawn of these southwestern industrial districts is made up of those who have come for health. Then, too, consumptives are so common as to be little noticed or feared, and these factors have contributed to a tolerance and sympathy which can nowhere be excelled and which is a constant and agreeable surprise to new-comers who have been accustomed elsewhere to being shunned as though marked with the spots of leprosy. It may be expected that those showing the advanced stages of the disease will not be received in homes or public houses where they are likely to become a source of infection. They should not seek this sort of shelter, but

tending to gunshot wounds and the bites of snakes and gila monsters. This idea, fortunately, is rapidly becoming extinct. Success is as sweet to the medical man as to the financier and much of the best talent in the country has gone west where natural conditions will aid in attaining success against tuberculosis and kindred diseases. These men are no theorists. They are face to face with an enormous and constantly growing problem, and are daily dealing with every possible type of tuberculosis gathered from the ends of the earth. They are working in an atmosphere of cheer and hope and are, by their very attitude toward the disease, a great encouragement to those whom they treat.

What Per Cent. are Cured

Some patients arrive every year, many of them only in the incipient stages, who do not seem to be benefited. Others do not allow themselves a proper chance. Some unusual climatic condition, some unfriendly encounter or other untoward event, gives them an un-

favorable impression, and it is quite true that the chances do not favor those whose mental attitude is not optimistic or at least receptive. A great effort should be made to provide home-like surroundings at once, for newcomers are invariably curious about themselves and likely to be elated over any improvement or depressed if they do not at once improve. This matter of keeping the mind in tune is all important. However, actual statistics show that ninety per cent. of those in the first stages and sixty per cent. of those in the second or consumptive stages will recover with a reasonable amount of medical attention. Medical attention and advice are desirable in any event, since it not only serves to aid directly by treatment, but also prevents the patient from becoming slack in diet and mode of living and keeps him aware of his duty in protecting others from infection. If the tuberculous of our country could be placed so that ninety per cent. or even seventy-five per cent. of them could be cured and at the same time eliminated as a source of infection the greatest mortality problem of the age would be solved.

Justice to the Southwest

What I have written savors of Arabian Nights or the Garden of Eden rediscovered, but if the great army of the tuberculous should invade the region I have discussed, a condition too pitiable for description would be created. It is not too much to say that the situation in regard to indigents is already acute. Nurses, associated charities, ministers, physicians, county hospitals and poor farms and individuals at large are soliciting every dollar that can be had to care for the army that annually arrives seeking refuge from the great white plague. These Southwestern communities are communities of comparatively poor people. Too many of them have struggled and are still struggling to lift the tax which the disease has placed upon them and are not able to aid materially in the support of others. They are conquering a vast desert, laying upon themselves a heavy obligation in irrigation projects, transportation facilities and improvements, and it is too much to ask them to undertake the support of the nation's sick, sent by thoughtless physicians or relatives without means of support, to become pensioners upon an already over-burdened people. Hundreds of the most pitiful cases are reported every year. Consumptives, absolutely penniless, are taken from the trains in a dying condition and with no possible fate before them but to die in whatever accommodations can be found, alone and among strangers. Indigents, unless in the very first stages and capable of manual labor, are better off at home than in any distant resort, no matter how favorably situated.

Work for those still active is very limited, as it is in all health resorts, so that they would be better off to borrow if necessary and devote

their time to getting well, returning later to their work. Thousands already in these resorts are doing work far beyond their strength to earn daily bread, or are actually in want, thus retarding their recovery or failing entirely in their desperate struggle to regain health.

It is a day of big things, big investments, big revenues, big donations. Millions are expended in worthy charities and humane endeavor, but no great, organized, public, efficient charity is aware of these souls or in a position to render them the assistance they need to bring them back to health and active citizenship. A great City of Good Will was planned by eminent ministers and physicians and local parties subscribed liberally to its support, but there was no response from those very communities which are the great national foci of infection and from which a large per cent. of indigent sick are received, so that the worthy plan failed for lack of support.

Legislation against the influx of the tuberculous into Texas some years ago aroused bitter adverse comment. It was not humane nor charitable. As states and as a nation we are Samaritan, yet in tuberculosis there seems to be no limit to the exodus of disease from one to another, even to those overburdened by it, and there is no redress within the law of brotherly love and "man's humanity to man."

Some months ago a young woman dying of tuberculosis in El Paso gave this great message to Miss Olga Nethersole. She said in substance: "Tell those who are donating libraries and endowing colleges that they would do a greater service to humanity to build sanatoriums everywhere, to provide means to heal the thousands that are annually being cut off by this great devastator. Tell them to heal the bodies first and then cultivate the minds." She was a graduate of two colleges, a woman trained to do a great work in the world and with a promising future. Perhaps she was too ambitious to accomplish her mission. And she is only one of the many great minds whose most effective work has never been done because of tuberculosis, the great foe of students and brain workers.

A committee of the Knights of Columbus recently recommended, that their Order should establish a great sanatorium in the Southwest. They had actually found that under average conditions there, and with an average per cent. of cures, such a move would be cheaper for the Order than to pay the death rate claimed by this disease alone. Whether or not this recommendation is put into effect, this is a promising work for all fraternal brotherhoods and life insurance companies.

But it goes beyond that. It is a more worthy field for governmental investigation and expenditure than yellow fever, or bubonic plague, or malaria. The time is not far distant when any country that allows a single disease to take from its people a death toll of a hundred thousand will be hopelessly behind in the race of national progress.

TUBERCULOSIS FACTS FOR PATIENTS*

THE BACILLUS

The specific cause of tuberculosis is the tubercle bacillus, as it is called, a little colorless rod-like plant so minute that many thousands of them piled one on top of the other are still so small that they cannot be seen by the naked eye.

This germ, once it enters the system, multiplies slowly and gradually, unless its course is checked, and it will eat away the tissues of the body until, with the destruction of the parts affected, death ensues.

Some of the cells of the body gather round the germs and form a little mass or lump there, which is called a tubercle, these tubercles varying from the minutest pin point to the size of a marble or larger.

Around these tubercles there may take place a process ending in healing or one ending in destruction and death. As a wound heals with the formation of a dense hard scar, so scar material may be formed around and through the tubercles, shutting them in. When there is a firm enough scar formed the germs can do no injury, and the person is said to be cured.

Again, the irritation may be so great that the tissue becomes inflamed for some distance around the germs: if, for instance the germs are in the lungs, a part of the lung may become solid, as it does in pneumonia.

While the germs are multiplying they form a poison which is in itself an irritant and which, being absorbed, causes fever and certain other symptoms of tuberculosis.

PREVENTION OR CURE

When the tubercles and the tubercular masses attain some size they usually die at their centres, and if there is an opportunity, as when there is an air tube leading from them to the open air, this dead matter may be coughed up, forming part of the sputum of consumptives.

It is this coughed up material containing these tubercle bacilli, the germs of tuberculosis,

that when dried and breathed in by other persons, sets up the same wasting process in them, making them in turn new centres for the communication of tuberculosis to others.

This then at least, we must do—render the germs coughed up by consumptives harmless. We must learn too, to so build up the body that it will be strong and healthy and able to resist the germ if it does gain entrance to the system; we must also make proper provision for the cure of the consumptive if the germ does make headway in its destructive course through the body.

For tuberculosis not only is preventable and communicated from one person to another—it is also curable.

The sputum may contain no germs, or it may contain several thousand germs. In the latter case the germs, though alive, are harmless so long as they are wet, because they cannot then be blown about; but soon the sputum becomes dry through exposure to the air and sunlight. The sputum becomes pulverized, the minute invisible germs often attaching themselves to dust particles to be blown about with currents of air or stirred up by sweeping. Then the germ, which, while lying still or in its travels through the air, has been keeping within itself its energy and power of reproduction, at last finds its resting place within some human body, where at once begins a struggle between the ingenious natural safeguards which protect the delicate human mechanism and this grasping, hungry germ with its wonderful ability for growth.

Dust and dirt and their removal play an important part in this tragedy, for it is upon these particles that the germs are often carried about. Dust and dirt are themselves agents which irritate and weaken the lungs, the organs of the body most frequently affected by tuberculosis.

The prevention of needless dust and the proper removal of dirt are accordingly of high importance as means to the prevention of consumption.

DANGER IN DUST

The usual dry sweeping and dusting and the cleaning of streets without preliminary sprinkling are active agents in spreading tubercu-

*This article is arranged from a series of copyrighted articles published in the *American Journal Examiner*.

losis. This is no theoretic matter, but one amply shown by experiment and proof.

How often do we see in "dusting" a process which simply stirs up the dust and the germs quiet on exposed surfaces setting them floating in the air to gradually settle in out of the way places, where they remain unseen and living ready to give birth to countless myriads of their kind when at last they shall gain entrance to the human body?

The proper method is to use damp cloths instead of dusters, to sprinkle wooden floors with water or wet sawdust and carpets or rugs with coarse salt, tea leaves, wet paper or something of the sort, to sprinkle or flush streets before sweeping them, and to carry away the sweepings and the refuse and ashes from houses in covered wagons.

However the cleaning is done, the main object should be to get the dirt and dust not afloat, but away.

There is a little cardboard folder containing information for consumptives and those living with them, issued by the Charity Organization Society's Committee on the Prevention of Tuberculosis and the Committee on Sanitation of the Central Federated Union of New York.

It is called "The Consumptives' Golden Rule," and is entitled "Don't Give Consumption to Others: Don't Let Others Give it to You."

It enjoins upon us all that familiar command, "Do unto others as ye would that they should do unto you." Here lies the duty of the consumptive.

He must remember that he has it in his power to take such care of the matter which he expectorates and coughs up that it is perfectly safe for persons to live with him and to work by his side, or to be so careless that he may give tuberculosis to his family, to his fellow workmen and to many others.

CARE OF CHILDREN

The tuberculous mother should be especially careful with her children. She should never let her child use the same cups, spoons, and eating utensils as she uses herself, and hard as it may be, the very life of her child may depend upon the mother's avoiding those caresses which every instinct of her nature impels her to lavish upon it.

The consumptive must not kiss others upon the lips, for the lips have upon them some of these living germs, so small, it will be re-

membered, that several thousands of them piled together are still not large enough to be seen except with the aid of a magnifying glass.

It is largely due to failure to exercise this care in disposing of sputum, in avoiding needless contact with the eating utensils of the tuberculous members of the family, and in failing to have separate beds or rooms for them that tuberculosis runs through families. It is not because the disease is inherited. We now know that tuberculosis is not inherited.

The tuberculous parent may have children who have weak bodies and small resisting power to the germ of tuberculosis if it gets into the body, but the children do not have the germs in their bodies at birth.

The reason that we have seen so often the disease running through whole families is because the children, perhaps, with inherited weak constitutions, are daily exposed to the germs living on furniture and hangings, on spoons which mothers use to taste the food before it is given to the babies, on the very lips that would kiss back to health the pale faces and the thin little bodies mysteriously wasting away.

Tuberculosis can be prevented. It depends largely upon the people themselves as to how soon and how thoroughly this shall be done.

In the old city of New York, the present boroughs of Manhattan and the Bronx, there has been such a reduction in the death rate from this one disease that recently, with a population of 2,235,060, there were only 152 more deaths than there were in 1881, when the population was only 1,244,511.

If the death rate had been the same then as it was in 1881, there would have been 10,996 deaths from this preventable disease in these boroughs, instead of 6,275.

If you think that the prevention of tuberculosis is an impossibility or that the accomplishment of this thing is only within the realm of hope and fancy, think of these 4,700 people who are to-day living who would have died last year if those who have been fighting for better conditions had given up. If we do our duty, tuberculosis will in time cease to be the great white plague, as it now is. In fact, we may with confidence look forward to the time when it shall be practically stamped out.

Within very recent years, two great discoveries have been made about this scourge which is annually destroying hundreds of thousands of human lives. One is, as we have seen, as

to the cause of the disease: the other is of equal importance—as to its possible cure by fresh air.

This last sounds very simple, and it is simple; but it is only slowly that people are coming to understand it. Go to a tuberculosis hospital, or to the most expensive sanatorium, and in both you will find that but little importance is attached to drugs or medicines; fresh air and plenty of it, night and day, winter and summer, is what is given to the patients.

Often, so as to get the greatest amount possible of this free tonic, the patients not only spend all their days out of doors, but they sleep out of doors as well, even in the coldest weather.

KEEP WINDOWS OPEN

And if you wish to prevent tuberculosis, if you want to keep well and to keep your family well, get as much fresh air as possible.

Open all windows and air your home for ten minutes every morning and evening.

Never go to bed without having your windows open, the wider the better, and remember that the night air is not bad for you. In cities it is probably better for you than the day air, for it contains less dust.

If your room has no window to it, find a room that has one if you can, or at least keep the door open into the room to which it leads, and have the window in that room open.

Do this even in the winter. Rooms with a proper supply of windows may mean higher rent, the health-giving cold winter air may mean more blankets at night and more coal in the day; but it means less money for doctors' bills and less loss of wages by reason of illness.

Fresh air and still more fresh air we must have if we are to prevent tuberculosis. Not in the home only, but in the shop, in the school, in cars, churches, wherever in fact people stay within doors.

All these places should be opened up at stated intervals so as to completely renew the air, and where possible the air should be given a chance to get in on one side of the room and out on the other.

In this way the change of air is much more rapid and thorough. Remember that fresh air means health, and it is nearly always possible to have some fresh air, even if living in the worst of rooms.

Insist upon it, open the windows yourself; do not be satisfied with merely asking others to do it.

VALUE OF FOOD AND REST

In the cure of tuberculosis there are three things necessary. These are fresh air, good food and rest. Medicines, in the ordinary meaning of the word, count for very little, and as for drugs and patent medicines, the "sure-cures," the "germ-killing" gases and lights widely advertised, these are positively harmful in spite of their glowing testimonials.

What the body needs when it is being eaten away by the germs of consumption is a careful, systematic building up. New strength must be put into the blood and wasted tissues must be repaired.

To accomplish this good and abundant feeding is necessary. No special diet exists which could be recommended to every tuberculous patient indiscriminately. In general, one might say, that all good, easily digested and easily assimilated food is suitable in tuberculosis.

The stomach of the patient must be kept in good condition for otherwise his chances for cure are much diminished. To this end he must avoid taking patent medicines or remedies not recommended by his physician, particularly patent cough mixtures which often contain ingredients harmful to digestion.

AVOID FRIED FOOD

The patient should keep his bowels in good condition and should avoid all fried food. All meats should be boiled, broiled or roasted. In some instances raw, scraped beef is particularly good, when cooked meats are digested with difficulty.

Eggs may be taken in any form the patient likes best—raw with milk or a little lemon juice; soft or hard-boiled or poached.

Cereals, with milk or cream, may be taken for breakfast or supper if the patient is fond of them. Milk and water should be the principal liquids.

The tuberculous patient can never eat too much butter. Fresh bread is not as easily digested as relatively stale bread, and whole wheat and rye bread is more nourishing than the ordinary white bread.

Of vegetables, those containing a good deal of iron are particularly to be recommended; these are spinach, cauliflower, lentils, peas and beans. All fruits are good, but grapes are

particularly nutritious. Nuts are also excellent. Honey and pure sugar can be taken in large quantities providing these articles do not cause any disturbance of the digestion. Soup before the principal meals helps in the digestive process.

REGULAR MEALS

As general rules concerning the dietetic treatment of tuberculous patients one should remember the following: There should be regular meal times. The teeth should be kept in good condition; without good teeth one cannot masticate nor digest well. Patients should chew their food well and eat slowly; one should not eat when tired, nor work immediately after eating; it is better to rest in a reclining position half an hour before and half an hour after eating.

But little liquid should be drunk with meals, but plenty of pure, fresh water should be taken between meals. No alcoholic drinks, whiskey, beer or wine, or any patent medicines containing alcohol should be taken unless the alcohol is especially prescribed by the physician.

Alcohol never replaces food and is a good deal more expensive than food. If one can do so without lessening the appetite for the principal meals he should take a few glasses of milk or a few raw eggs between meal times. It will help to put on fat and make strength.

Whenever the weather permits the patient should eat some of his meals in the open air or in front of the open window. All foods should be served appetizingly. Light conversation at the table helps digestion; reading books or newspapers and conversing excitedly while eating hinders digestion.

MUST NOT WORRY

No absolute rule can be laid down for a tuberculous patient in regard to his food. His likes and dislikes and digestive peculiarities must be considered. Such things even as ham, smoked tongue, and even pickled and salt herring, sardines, cheese and salads may at times be eaten.

These delicacies seem at times to stimulate the appetite when all other means fail. If there is any serious trouble with the stomach the best the patient can do is, of course, to seek the advice of his physician, who will find out what is the trouble and help by a change of diet or administration of medicine.

The patient should not worry, as worry will surely retard recovery. Nor should he work or exercise overmuch; if he does so it may bring on hemorrhages. If his day's work is hard, if he must handle heavy weights, or if his regular work is such that while at it he must breathe air full of dust or gases, he should give this up and find employment in which conditions are not so unfavorable.

This will often mean reduced wages and hardship, but it is better to make the change in time, costly as it may seem, than to continue in surroundings which it is evident will retard, if not make impossible, ultimate recovery.

DON'T OVERWORK

Exercise in the sense of regular physical work for the purpose of strengthening the body should be undertaken by the patient but sparingly, and only under advice of a physician.

In some stages of the disease absolute rest is necessary, and as a rule, far less is expedient in the way of exercise than is commonly indulged in.

The consumptive whom we sometimes see painfully walking the miles which he believes must be daily covered to bring him back to health and vigor, or over-exerting himself in some other manner, is the victim of misdirected zeal or unsound advice.

Often the food which should go to the building up of the weakened body is used up in renewing tissue wasted by this work. It is a matter which is not to be decided except by the physician acquainted with the individual case.

He is the one to be consulted and followed, and not some friend who has tried some method which for reasons unknown to him, and perhaps not applying to other cases, has proved beneficial to him. The consumptive who walks across the continent and regains his health in so doing, according to reports, should not be imitated; there may have been altogether exceptional conditions in his case, which, not being present in his would-be imitators, would in them render the attempt fatal.

It is more than probable, moreover, that much as the unusual accomplishment may have benefited our long distance walker, had he lived out of doors, taking no more than rational exercise under medical direction, or

even without it, his recovery would have been quicker and more lasting.

NO ALCOHOL

The patient should avoid not only excess of exercise, but in all things he should be moderate, especially in the matter of drinking, smoking, drugs; in whatever unduly excites the mind or wears upon the physical strength should he restrain himself.

Intoxicating drinks, beer as well as whiskey and wine, should be given up absolutely, except as a physician may occasionally order small quantities to be taken for medicinal purposes. The feeling of renewed strength, the exhilaration, the cheer which the patient may have from taking one or two drinks is sure to be followed by a reaction which will be positively harmful.

Even very moderate drinking may be followed by higher temperature, coughing, hemorrhages, and must not be indulged in. Alcohol is a medicine, at times indispensable in the treatment of certain diseases; but liquor as a beverage is never useful, and is nearly always harmful even to the healthy man; to the consumptive it may be and often is fatal.

Alcohol, and certain proprietary medicines, which rely upon the large quantity of alcohol which they contain for the bracing effect which for the time they cause, cannot cure or help to cure consumption. Alcohol, has never cured and never will cure tuberculosis. It will either prevent or retard recovery.

We see this in individual cases every day; it is shown also by statistics that those people who are heavy drinkers have a death rate from tuberculosis higher by far than those who do not drink to excess.

It has been estimated in fact that drink triples the susceptibility to tuberculosis.

DUTY OF THE PUBLIC

We have seen that the cause of tuberculosis is a germ contained in the sputum of the patient; we have seen that the disease can be

prevented; we have seen that it can be cured. That fresh air, sufficient food and rest are the remedy, and that there are no "sure cures."

There remain two considerations of prime importance. And first, he who has tuberculosis or symptoms which point to the disease, such as a cough, which he cannot shake, a high temperature, night sweats, loss of weight or heavy matter in his sputum, should at once consult a reliable physician or go to a dispensary and follow carefully the advice received.

To save himself if he is not able to secure in his home a very large amount of fresh air and good, wholesome food, to save his family and his friends, if he is not willing and able faithfully to dispose of his germ-laden sputum, let him go to a hospital, where he will know that he is doing his best in his battle for life, and that he is not endangering others.

It may be difficult, it may seem even impossible, to give up his work upon which his family depend, because he has a slight cough which his doctor tells him is caused by tuberculosis, but it will be no easier to give up his wages later when he has become too weak to work and when recovery will mean a much longer period of sickness and a greater loss of wages.

DELAY IS FATAL

Constantly it must be remembered that in the majority of cases of tuberculosis, if properly treated in time, the disease is not fatal. Delay, however, often is fatal.

THE REAL FIGHT

The whole story is summed up in four words—FRESH AIR, GOOD FOOD—fresh air to cure the consumptive; fresh air to prevent consumption; good food to keep the body healthy and strong.

Nature is the great healer. It is man, with his tenements, his factories, his drunkenness, his ignorance and his inhumanity, that has made consumption what it is—the disease of the masses.

THE NINTH INTERNATIONAL CONFERENCE ON TUBERCULOSIS

BY WILLIAM H. BALDWIN

The Ninth International Conference on Tuberculosis, held at Brussels, October 5 to 8, 1910, was attended by about 180 delegates from twenty different countries, who were well provided for by the committee in charge and the citizens of Brussels. Among the members missing was Dr. Bombarda of Portugal, whose death precipitated the revolution which broke out about the time the Conference began.

The trend of the Conference was toward the practical application of the knowledge of the disease already gained rather than toward the discussion of points not yet clear, or about which doctors do not yet agree. This was shown in the relative proportion of the time given to the consideration of the protection of children in the school and in the home, and to the rôle of woman in the campaign against tuberculosis; but the medical and scientific aspects of the disease were also considered in various papers and reports.

In opening the Conference on Wednesday, October 6, M. Berryer, Minister of the Interior, welcomed the delegates and referred to the well-known interest of the king and queen of Belgium in the anti-tuberculosis work.

Mr. Beco, governor of Brabant, in whose palace the sessions of the Conference were held, and where a charming reception was given by him and his wife to the delegates in the evening, made the principal opening address, as chairman of the local committee. He referred in an earnest way to the progress made in overcoming tuberculosis in Belgium and in other countries, and outlined the topics to be considered at the meetings.

M. Leon Bourgeois, ex-President of the French Assembly and President of the Conference, in responding thanked the committee and citizens for their hospitality, and proposed to send telegrams to the heads of each of the governments which had sent delegates, acknowledging their aid. To many of these most encouraging replies were received, and read at the closing session of the Conference.

In his remarks he referred to deaths which had taken place during the year among those prominent in the work: Dr. Koch, who discovered the bacillus; Dr. von Leyden, one of the vice-presidents of the Conference, whose death had been announced the day before, and Dr. Chesson, of France, who had been a leader in the struggle against alcoholism and bad housing.

The actual work of the Conference then began with the consideration of a paper by Landouzy which took up some subjects unfinished by the previous Conference relating to congenital infection and to predisposition to tuberculosis.

The statements made were apparently reasonable. Dr. C. Theodore Williams of London, among others, was more emphatic as to the influence of heredity than I supposed the facts warranted, but the instances he gave from his experience seemed to justify his opinions.

Dr. Sims-Woodhead of Cambridge took a middle course, saying that while he did not deny the facts as to the influence of heredity we must remember that it is the bacillus we are fighting, and that there can be no tuberculosis without it.

The protection of children against tuberculosis was considered at the session next morning, and the prevailing sentiment as to this is perhaps best expressed in the words of Dr. Pynappel, of Holland;

"The protection of the child is the most valuable and the most efficient means of fighting tuberculosis."

Bielefeld, at the head of the German system of insurance, thought tuberculous adults ought to be removed from a home where there are children, and suggested that the insurance system indirectly made it possible to accomplish this, where no other law exists. Rørdam of Copenhagen declared that the children should be removed if adults with tuberculosis could not be, and Hamel of Berlin also urged that young children be removed to healthy surroundings in the absence of any means for

taking adults with tuberculosis out of the home.

While these ideas seem somewhat advanced now, they are directly in line with the New York law which permits the forcible removal of a consumptive who carelessly or wilfully endangers the lives of others, and it is not hard to perceive that the ultimate cost to the state would be less in removing the children and ensuring them a healthy start in life than to leave them as now and take care of them after they have come down with tuberculosis, as they are almost certain to do in after years.

Notable among the statements in regard to children in schools were those of Frons, of Vienna, who declared that not only open but latent cases of tuberculosis in the schools, whether of teachers or scholars, ought to be removed, and provision made for their proper care; the open cases because of the danger to others, and the latent ones in order that they might not become open cases. He also urged the wisdom of not putting upon scholars a greater strain in their school work than they were able to bear, because the strain and the confinement at that age made them more liable to contract tuberculosis.

A paper submitted by Dr. Heron of London, who was not able to be present, stated that in accordance with the recommendations of the International Conference of 1907, elementary hygiene is now a compulsory subject of study in all the training colleges for teachers in England, and before receiving a certificate of proficiency each teacher is required to show a sufficient knowledge of the laws of health.

The afternoon session of Friday was devoted to consideration of the rôle of woman in the crusade against tuberculosis, and papers were read by a number of women. The society described by Frau Altschul, of Prague, works on lines closely resembling the plan of friendly visitors in the charity organization societies of Washington and other cities in America. Each lady takes a certain number of tuberculous children and sees that they have proper instruction, not only as to tuberculosis but also as to the proper manner of living generally, and that they have the means to get proper food and clothing. Frau Pannwitz, of Berlin, based her statements on the idea that tuberculosis is a disease of the house, and that as the woman presides in the house

she is in a position to do effective work in the struggle against the disease.

Dr. Hanssen, of Norway, said that it is by creating and maintaining families which are free from tuberculosis that we shall succeed in definitely arresting its progress; and in this woman has a principal part.

One of the most important features of the Conference was an illustrated popular address which Calmette of Lille gave after this session. It was very orderly, very clear, and his delivery was admirable. The colored illustrations were excellent, the best I have ever seen.

He emphasized the indications of the extent of tuberculous infection in children, developing later as pulmonary tuberculosis where it did not carry them off in some other form while infants, but often overcome. He spoke of the possibility of congenital infection and of infection from milk, but thought other sources more important; and he urged the protection of children, by removal to the country from infected homes when necessary, very strongly.

In this connection he referred to the ophthalmo-tuberculin test as a means of determining whether a child was infected or not, and suggested the possibility of making such tests on children from time to time, so that if they had become infected the proper care could be immediately taken. He said we had not got to this point yet, but seemed to think it a logical development from our present knowledge.

He, too, emphasized the necessity that woman should take an effective interest in the movement against tuberculosis.

Another interesting paper given at the same session with illustrations was by Dr. Block, of Sweden, on tuberculosis among the Lapplanders, in which the conditions seemed to resemble those among our American Indians as to the contrast between a nomadic life and the crowding together which occurs when this is changed to life in small houses in a cold country in the winter.

Dr. von Schrötter of Vienna gave an illustrated account of the expedition to Teneriffe in reference to the effect of the sun's rays, which furnished data for their report presented on that subject.

One of the most important papers presented at the Conference was a report by Dr. Nathan

Raw, of Liverpool, outlining the general measures recommended by the Conference for the control of tuberculosis.

The printed abstract of his paper is as follows:

"Tuberculosis is a disease of ignorance and of misery, and our efforts to prevent it must be directed towards the social conditions and unsanitary surroundings of the poor.

"It is essential that a very close co-operation must be established between voluntary action and government and municipal efforts, in order that the spread of the disease can be controlled, and proper means provided for the treatment and cure of those afflicted.

"The general measures as recommended by this Conference for the control of Tuberculosis are very briefly as follows:

1. Voluntary and compulsory notification
2. Removal of affected children from school and home.
3. Treatment of children in special children's sanatoria.
4. Education of the general public with regard to the disease.
5. Provision of municipal dispensaries in every community.
6. Provision of sanatoria for the cure of early cases.
7. Institutions for advanced cases.
8. Home training and supervision amongst the working classes.
9. Rigorous supervision of the milk supply.
10. Extermination of tuberculosis from amongst cattle.
11. Assistance to family in the absence of the breadwinner.
12. Provision of suitable employment to cured cases, and those in whom the disease is arrested.

"Such a general scheme as this, will, if properly organized, greatly assist in the eradication of Tuberculosis."

Some of these measures are already receiving great attention in the leading cities in the United States, and adequate laws have been enacted in regard to them, but several, especially those relating to children, are yet largely in the future. It is to be hoped that this formal indorsement of them by this Conference, with the discussion here of the importance of safe-guarding the children, will promote the adoption of such measures in the United States by convincing people of the necessity for them.

Dr. Stephen J. Maher, of New Haven, read an interesting paper on the relation of the tubercle bacillus to other forms of bacterial life, in which he advanced some ideas not generally accepted. The report on the gratifying progress made in the United States during the last year was presented by Dr. Ravenel, of the University of Wisconsin.

An important action taken by the Conference was the appointment of twelve Permanent Commissions, on the following subjects:

1—Scientific:

- A. Predisposition.
- B. Ways of infection.
- C. Milk.
- D. Scientific and vaccinal treatments.
- E. International signs.
- F. Solar radiation.

2—Social:

- A. The rôle of woman.
- B. Childhood and school.
- C. Prophylaxis and dispensaries.
- D. Cure.
- F. Public measures.
- F. Statistics.

The next Conference is to be held in Rome in September, 1911, where the International Congress meets at about the same time, and these Commissions are expected to consider these subjects so as to make suitable reports on the status of them at that time.

THE CHRISTMAS SEAL CAMPAIGN

APPEALS FOR THE PURCHASE OF CHRISTMAS SEALS

BY WOODS HUTCHINSON, M. D.

"If ye give to them of whom ye hope to receive, what thank have ye?"

"Peace on earth, good health to men!" is the new Christmas greeting. Or, as the revised version hath it, "Peace on earth to men of good will," peace on earth to men of good health! The only real and permanent peace known.

Not all the strains of the multitude of the heavenly host singing together, and of the anthems that rise from Christmas day congregations, beautiful and inspiring as they are, can bring peace to the hacking cough, or cheer to the gaunt bosom of the consumptive. The heartiest Christmas spirit, the most cordial of Christmas greetings, are poor substitutes for sunshine, fresh air and good food. A turkey for the poor once a year, while far better than cod liver oil, is not enough. What they need is a beefsteak every day!

Our Christmas customs, admirable and beautiful as they are in theory, have too largely degenerated into a sweet antiphonal service of selfishness. "Giving to those who can give to us again;" precisely as the lowly Nazarene, whose birth we are supposed to be celebrating, forbade us to do. Each year we sit down with a groan and a pencil to figure up: "Let's see, how many have we got to send presents to this year. What did that one send us last Christmas, and how much did it cost?"

Any benevolent tyrant who would abolish the silly slavery of the present custom, and make it a misdemeanor for any person of sound mind to send a Christmas present to anyone over fifteen years of age, or in re-

ceipt of an income of more than fifty dollars a month, would be hailed as a real benefactor of humanity.

But while waiting for this Millennium, here is a chance to take the curse off our custom-made selfishness! In this wide and prosperous land of ours, at this joyous season, there are two hundred thousand homes in which the return of Christmas chiefly points mutely to the vacant chair by the hearth, emptied since last year's carols were sung; who see in the first snowflakes but a winding sheet for the new and yet ungrassed mounds in God's acre.

In those homes are a third of a million innocent children, and happy, glad-faced boys and girls, bearing already in their tender bodies the seeds of the dread disease. Half of them destined to an early death, or a blighted and stunted life.

Five dollars apiece a year from each of us, properly applied, would stop this harvest of death, and break this pathetic procession of child victims to the altar of the Moloch of Ignorance. Intelligence and money would have saved the lives of 100,000 of the past year's victims. A little more money and a little more intelligence would prevent the further spread of the disease, and heal ninety per cent. of these smitten children.

Do you want to aid in promoting the spread of such intelligence in every city and every county of the Union, in awakening the hygienic conscience of the nation to stamp out this plague? Then put down first and largest upon your list of expenditures for Christmas, **RED CROSS SEALS!**

BY SAMUEL HOPKINS ADAMS

Suppose in your newspaper, you were to see this headline heavy-typed across the middle of the page:

DEAD—200,000 AMERICANS!

A Million More in Desperate Peril!

It would startle you, wouldn't it? Undoubtedly. But the sensational expression of the fact, not the fact itself, would administer

the jolt to your faculties. For the fact is constantly before us all, and startles nobody. Two hundred thousand Americans died last year of consumption. One million more are now beset by the same peril. These, in turn, are infecting or will infect their hundreds of thousands of others. All needless; all preventable; all a sheer and terrible waste of life.

Possibly you yourself will be one of the

hundreds of thousands stricken. There is at least one chance in nine of it. Probably someone near and dear to you will be a victim. There is more than an even chance of that.

What are you doing about it?

What can you do about it?

Buy a Red Cross Seal.

Sounds absurd, doesn't it? In the face of the most potent scourge of the human race, devastation more sweeping than that of war or earthquake, you are invited to do your part with a penny stamp. Well, a stamp isn't much in itself. But it may typify tyranny, and did lash this country into the struggle for nationality. And now these stamps typify the struggle against the nation's mightiest foe of to-day. Every one of these little squares means a cent for the campaign. Sixty million of them have already been issued and distributed over the length and breadth of the country. You can get them from your church, from your local anti-tuberculosis organization, from the

Y. M. C. A.; or, failing these, write to the National Association for the Study and Prevention of Tuberculosis, at 105 East 22nd street, New York City.

Fifty million seals means \$500,000. What can \$500,000 do toward saving a million consumptives? Not much, it is true. But it can do miracles toward preventing the further spread of the disease through eighty million Americans. Every seal means a warning. Every warning may mean a life saved. Education and education only, persistent, unremitting letting in of the light,—that and that alone will wipe out the great white plague.

So, whether you buy one of the gay little red and green seals to put on the back of an envelope, or ten thousand wherewith to paper a room, you will be doing your part in the great campaign. "A million for tuberculosis" is its battle cry, and the red cross flag on the seal, its banner. It is the war of one and all upon a common enemy. Get into the fight, though it be only for a cent's worth.

BY CHARLES L. MINOR, M. D.

To those who have faith in the future of our country and in the success of the experiment in civil government which was begun in these United States, in 1776, there are few more encouraging things than the increasing altruism of our citizens shown by the increasing interest which they take in the many movements which, while they promise them no personal advantage, aim to improve the race by helping to lessen sickness and poverty and suffering in their less fortunate brothers. Of such movements there are few which can so justly appeal to all of us as does the Red Cross Christmas Seal movement, which annually gathers from the kind hearts in our midst during the Christmas season money wherewith to lighten the terrible burden of suffering around us.

Of all the causes of suffering in this world, there is none that can vie with tuberculosis, which yearly claims a seventh of all those who cross to the other side; and, moreover, reduces

to beggary, and too often to crime, the many who are dependent upon these sick workers for their support. Therefore it seems to me that it should only be necessary to call this splendid charity to the attention of our citizens in order to have it well supported, and to guarantee that everyone during the glad Christmas season, when all hearts are softened, and purse strings loosened, will take the trouble to remember it, and in the midst of their happiness to remember also the happiness of the many who are less fortunate than they. It will only demand of us all a little forethought, a little trouble and a trifling expense, and so generous a people as ours will not allow an appeal for such a charity to fall on closed ears. Let us all, then, make this Christmas notable by remembering the Red Cross Seal and by taking pains to see that one such is affixed to every present we send to those we love and to every letter that goes carrying words of good cheer to our friends.

THE PREVENTIVE VALUE OF THE CHRISTMAS SEAL

A haggard looking woman, speaking with a strong Irish brogue, walked into a West Side drug store in New York the other day and asked for a bottle of Dr. Quack's Con-

sumption Cure. While the clerk was wrapping the package, she conversed volubly of Mike, her husband, who was sick with tuberculosis. She said one of her neighbors, Mrs.

Casey, had told her that the bottle of medicine she held in her hands would surely restore Mike to health. So she had saved fifty cents from the scant earnings which she made over the washtub in order that her husband might have a chance. As she turned to go away, her eye was attracted by a sign upon which was this legend in big red letters: "Buy Red Cross Christmas Seals, and Help Cure Consumption. A penny for a Seal."

From the few cents in the palm of her hand the woman drew out a nickel and passing it to the clerk, said, "O'i'll take five of thim. Sure, with this bottle of medicine, and thim things stuck on Mike, he'll be well in a wake."

The pathetic ignorance of this Irish woman presents a striking contrast to the enormous campaign of publicity and advertising which the National Association for the Study and Prevention of Tuberculosis and the American Red Cross are carrying on at this holiday season in connection with the sale of Red Cross Christmas Seals. Thirty-three state agencies and organizations in a dozen or more other states have covered nearly every nook and corner of the United States. Red Cross Seals and advertising matter have been distributed by the millions. When the new year comes in, it is hoped that 100,000,000 seals will have been sold.

Some idea as to what this means may be gathered from a brief survey of the Christmas Seal movement.

Red Cross Christmas Seals date back in their origin to "charity stamps," first used for the soldiers' relief funds in Boston in 1862, during the Civil War. After the war, this method of raising money was discontinued in this country for a generation, although it found vogue in Portugal, Switzerland, Australia, France, Spain, Denmark, Norway, Russia, Sweden and other European countries. There are now several hundred different types of charity stamps used in all parts of the world.

Stamps or seals were first used to get money for the anti-tuberculosis crusade in Norway and Sweden in 1904. After being used in these countries for three years, the Delaware Anti-Tuberculosis Association, headed by Miss Emily P. Bissell, and the Red Cross Society of Delaware, as a direct result of the interest of Jacob Riis in this movement, combined in

issuing a Tuberculosis Stamp. So successful was this campaign that nearly \$3,000 was realized, and the next year, in 1908, the American Red Cross was induced to issue a National Red Cross Tuberculosis Stamp. From this sale \$135,000 was realized, that amount being almost doubled in 1909. This year, for the first time, the sale is organized on a comprehensive basis, taking in all parts of the United States. A million for tuberculosis work is confidently expected.

Naturally, many people are asking how many Seals they should buy. The question is answered in part at least by a computation which the National Association has prepared for publicity use in the Red Cross campaign, entitled, "Your Tuberculosis Bill." The story says that a man of facts and figures in a Pennsylvania city recently computed that the illness and death of his child from scarlet fever, which she contracted in school, cost him \$377.50, while his or his neighbor's share in the prevention of this easily preventable disease would amount to only \$3.47. A similar calculation could be made in the case of tuberculosis.

Suppose a man, father of a family of three children, and earning \$3.00 a day, is taken sick with tuberculosis, what does it cost him to get well, and what would it cost each person in the United States to have prevented him from ever having had the disease? Here are a few of the leading items of expense to him in getting cured.

Six months' treatment in a sanatorium.	\$250 00
Loss of wages for six months, at \$3.00 per day	432 00

Total	\$682 00
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In addition, if the man is without resources, we must allow for a community cost for care of the family of four, which we may estimate at \$8.00 per week for six months, a total of \$192.00.

Now what would have been the man's share in the prevention of tuberculosis?

"An ounce of prevention" in the proper care of the body.	\$00 00
A study of some literature on the prevention of tuberculosis, which can be secured free of charge.	00 00
The stopping of all bodily excesses.	00 00
A timely examination by a doctor.	3 00
The purchase of 100 Red Cross Seals as a share in the general preventive campaign against tuberculosis.	1 00

Total	\$4 00
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How much did the man lose?

After all, what is a million for the prevention of tuberculosis when everyone knows that hundreds of thousands of boys and girls are homeless and friendless this Christmas because of the ravages of that same "captain of the men of death!" What are a few dollars, when nearly one-half the children in our orphan

asylums and homes for juvenile dependents are there because one or both of their parents are sick or dead with tuberculosis! "A million for tuberculosis" is but a beginning of what should be spent, and of what will be spent as soon as the meaning and purpose of the Christmas Seals is fully realized by the American people.

PRIZES FOR SALES OF RED CROSS SEALS

As a means of stimulating the sale of Red Cross Christmas Seals in New York State, the Tuberculosis Committee of the State Charities Aid Association has offered three prizes to the city or town selling the first, second and third greatest number of seals per capita of school registration. The prizes have been donated for this purpose.

The first prize is a stationary vacuum cleaning plant with a complete outfit of appliances and of any size that will meet the cleaning demands of any school to which the award is made. The plants range in value from \$750 to \$5,000. This prize is donated by The McCrum-Howell Co. of New York.

The second prize is an equipment of sanitary pedestal drinking fountains, donated by James B. Clow and Sons of Chicago. They will furnish any number needed up to Christmas which will equip a school of 1,500 pupils. This prize is valued at from \$30 to \$120.

The third prize is donated by Ginn & Co. of New York, and consists of a full equipment of as many books as are needed of the Gulick Hygiene Series of text-books on physiology and hygiene. The value of this gift is from \$25 to \$125. The text-books are for use especially in the fourth to the ninth grades.

The prizes will be donated to the community, and the local board of education or the Red Cross Seal Agency, or both, may award the prize in their respective cities or towns. The State committee is urging, however, that the competition be organized in each community on the basis of wards, school districts, or other political units, and that local merchants be induced to offer additional prizes for such contests.

Prizes aggregating several thousands of dollars in value are offered by the Wisconsin Anti-Tuberculosis Association for the sale of Red Cross Christmas Seals this year. The campaign opened November 28th and will last four weeks, closing at midnight, December 24th. The list of prizes includes a reward for cities, towns, villages, schools, lodges, and individuals, with a special prize for Catholic parochial schools. The awards will be based on per capita sale, giving everyone an equal opportunity to win.

To the city above 2,000 population making the highest sale according to population will be awarded a \$350 Henning piano, donated by the F. G. Smith Piano Co. of Milwaukee.

One \$50 sanitary street drinking fountain will be awarded to one city or village of 1,000 population or over, in each congressional district. The eleven fountains are donated by James B. Clow & Co. of Chicago.

Complete equipment for an open-air school will be awarded to the city of 15,000 population or over making the highest per capita sale.

The University Extension Division of the University of Wisconsin offers three lecture courses, to be awarded to the three cities or villages under 1,500 population making the highest per capita sale.

To the twelve cities of 8,000 to 55,000 population making the highest per capita sale will be given one month's services of a visiting nurse in the order of their sale.

A twenty-chart tuberculosis exhibit is offered to the local anti-tuberculosis society in the city making the highest per capita sale.

A concert size phonograph and twelve choice records are offered to the incorporated village

of 1,000 population or under making the highest sale according to population.

For rural schools there is offered a prize of 500 sanitary drinking cups and cup cabinet. The rural school making the highest per capita sale, based on the enrollment during the month of November, will receive the prize.

Every boy and girl in rural schools and state graded schools of the first and second class who sells 500 Christmas Seals will receive two valuable books, "Good Health" and "The Body and Its Defenses" of the Gulick Hygiene Series.

The special prize for Catholic parochial schools consists of \$100 worth of books selected by the winner from the stock of the M. H. Wiltzius Co., Milwaukee. The school making the highest per capita sale, based on the average enrollment during November, will be adjudged winner.

As will be seen, no city, school or individual has an advantage over another. The little city has exactly the same chance of winning as the large city. It will be recalled that last year a city of 2,000 won the big prize in competition with cities of 25,000 to 50,000.

MOVING PICTURES FOR THE SEAL CAMPAIGN

The Edison Manufacturing Company has just completed a moving picture film, which is very timely for the Red Cross Christmas Seal Campaign. This film has been produced in co-operation with the National Association for the Study and Prevention of Tuberculosis and the American National Red Cross.

It is hoped to secure the exhibition of the film in as many moving picture theaters during December as possible. The film is full of human interest and is also of great educational value.

It shows a girl of the tenement district struggling for existence in poor quarters by painting designs upon paper baskets and lamp shades. Into her life has crept a longing for a brighter future in the field of art. She visits a school of art and learns that her wages are far too small to allow her to lift herself out of her present surroundings. Her sad face attracts the attention of a young man of wealth and sets him to thinking. He decides to see how the other half of the world lives, and so, donning old clothes, he secures a room in the cheap tenement house district where she lives. Here a new world opens before his gaze, a world of poverty and want, a world of suffering and sickness. He keeps his identity concealed, however, and watches the progress of events. He sees the young girl struggling for existence; he sees her striving to win the prize for the Red Cross Stamp design for Christmas time; he sees her success when she has won the prize; he sees how bright the future is before her; and at last he sees what sacrifice means in its noblest

form. She gives up her future, her little prize money, that means so much to her, so that her neighbor's son might be cured of the awful White Plague. The young man also sees that he has fallen in love with this noble, self-sacrificing girl. She never knows that her greatest sacrifice has won for her a glorious future, a great love, and great riches until the closing scene.

Intermingled with these views of the Silent Drama, are shown the actual conditions that breed tuberculosis, the work of the district nurse, the open air day camp, the right way to live, and the wrong way to exist.

The film is entitled, "The Red Cross Seal." It will be available for use in moving picture theaters controlled by The Motion Picture Patents Company, on and after December 16th. If local associations will go to the proprietors of local theaters and ask them to show this film, stating that the local association will see that it is advertised in the papers and elsewhere, the theaters will be more apt to secure it from their exchanges and to show it than they otherwise would. If there is a film exchange in the city, a personal visit to the manager, showing interest in this picture, will help to induce him to push the use of the film. This picture is of value, not only at this season but for the entire year. It is however, particularly valuable now. Local committees can assist greatly in the educational campaign against tuberculosis and in the sale of Red Cross Seals by inducing their theaters to show it now.

THE CAMPAIGN IN NEW YORK CITY

There is no longer anything startlingly new in the idea of efficiency in charitable work. However, the manner in which the Red Cross Seal campaign is being conducted in New York City is one of the best illustrations of charitable efficiency which may readily be found.

The Committee on the Prevention of Tuberculosis of the Charity Organization Society has set for itself the task of selling \$100,000

adding machines. The city has been apportioned among them and these men "work" their territories, visiting stores suitable for agencies, explaining the object of the committee, arousing interest in the work and in every way possible creating enthusiasm in the proposition.

In the campaign's headquarters is an eight foot wall map of the island of Manhattan and the Bronx, the territory covered by the



ONE OF THE BOOTHS IN NEW YORK. THE MINIATURE SCHOOL EXHIBIT SHOWS HOW THE MONEY
WILL BE USED

worth of Christmas Seals. Realizing that the campaign is essentially a selling campaign and that salesmanship is one of the most highly specialized forms of modern business, the committee decided to retain a specialist in the organization of sales campaigns. Mr. J. W. Binder was the man selected and he began his work on the eleventh of November. Under him is a staff of ten salesmen of experience who are held as rigidly responsible for good clean work and for keeping up their daily quota as if they were selling typewriters or

Tuberculosis Committee, divided into ten sections by means of colored tacks and red cord. It is just such a territory map as is found in the office of every modern sales manager. In each section dozens of tacks with small red heads are seen. Each of these tacks marks a selling station where Red Cross Christmas Seals will be on sale after the first of December.

Although the work had been under way less than a week when this was written, there were then upwards of 600 of these stations estab-

lished. The sales manager stated that at the rate the men were working, before the middle of December there would be 3,000 agencies for the sale of Christmas Seals scattered over the island of Manhattan and the Bronx.

Some of the large corporations like the United Cigar Stores Company and the McAdoo tunnels have volunteered the use of their stores and ticket selling agencies throughout the entire month of December. Handsomely decorated booths are to be placed in the large department stores, railroad depots, post-offices, hotels and other places where large crowds congregate. These booths will be in charge of girls who will be engaged for the work and be held responsible in the same manner as the other employees.

Publicity is being used to the fullest extent. Mr. George H. Perry, an advertising manager of unusually wide experience, is one of the few voluntary workers in New York's Christmas campaign.

Many of the large advertisers using the sur-

face, subway and elevated lines have donated the space now occupied by their announcements to the committee for periods varying from a week to a month. Five thousand spaces on the billboards throughout the city have been donated by the associations controlling them. Every newspaper in the city has voluntarily agreed to publish news matter concerning the campaign from time to time. Some of the large publishing houses, notably Collier's and The Century Company, are using the seals in large quantities, putting one on each piece of mail matter leaving their offices during a certain period in December.

Plans have been made to send the salesmen through certain of the business districts after the agencies have been established to induce business houses to use Christmas Seals on all of the mail which leaves their office during a certain period. From a preliminary survey of this field, it seems likely that the plan will meet with very gratifying success.

CHRISTMAS SEAL WARNING

The postoffice department has issued a warning to all postmasters that Portugal, Guatemala and Uruguay refuse to admit to the mails articles bearing non-postage Christmas stamps or labels. Portugal's objection, however, is limited to such stamps as resemble regular postage stamps.

Other countries, such as Great Britain, Germany, British East Africa, and a host of British dependencies, will accept packages when the stamps are attached to the reverse and not to the address side. The postoffice department announces that articles likely to be refused

admittance to the countries mentioned will not be forwarded from the United States, but will be returned to the persons mailing them.

Incidentally, the department has issued the usual annual caution that to avoid delay in handling articles bearing Christmas stamps to be transmitted in the international mails, the covers of such articles should bear the full name and address of the senders.

Red Cross Seals must be placed on the backs of all letters, whatever their destination, in order to avoid delay in the postoffice.

EMPLOYMENT BUREAUS FOR THE "CURED" PATIENT

BY MABEL JACQUES,

IN CHARGE OF TUBERCULOSIS CLASS WORK, BUFFALO, N. Y.

There are quite frequently certain phases of a work, the seriousness of which impresses those interested in the development of the undertaking, but which nevertheless appear always to be unintentionally passed over. This is the situation at the present day regarding the question of occupation for the cured or arrested tuberculous patient, who has been given permission to work, but is unable generally, to find employment which is suitable and favorable for his condition.

Why cannot there be some systematic adjustment of this matter? It is, of course, understood, that we are referring to the poor tuberculous patient, encumbered with a family, who is or rather has been dependent upon him for support.

Let us suppose that he is fortunate enough to become aware of the nature of his ailment while it is still in its early stages. He will doubtless be recommended for admission to one of the State institutions, set aside for the treatment of the disease with which he is afflicted. His condition proving satisfactory to the physician and other officials appointed to determine such matters, he is admitted to the sanitarium. At the end of the prescribed period of six or nine months he is discharged as an "apparent cure" or an "arrested cure," and told that he may return to his family, home and work.

During this time what has become of his family, and how have they managed to exist?

It is seldom that a man can leave them so comfortably situated that they are able to live without outside aid, though this is sometimes possible by there being other adult members who can work. But quite frequently they are obliged to apply to a charitable society or the city poor department for aid.

Upon his return home it is naturally supposed, by these agencies, that the man should resume his work and the responsibility of the support of his family. This he usually attempts to do, the result being more or less

disastrous to his health. Within a short time we are apt to find him again an applicant for the State institution, or, what is still more serious, the re-opened lesions rapidly grow worse and the patient is not able to qualify physically for re-admission to the sanitarium.

The question arises as to why such a situation should come to pass, as the result of the patient's return to work, when he has obtained permission from his physician to follow such a course?

The root of the trouble is not the fact that the man has resumed the responsibility of work, but the type of work that he has returned to.

The majority of persons engaged in occupations which would be suitable for the "cured" patient to return to, are unlikely to become infected in the first place, and accordingly we are little concerned with them. The great number of tuberculous patients have been doing work which is itself conducive to the development of the disease, or which must be done under conditions having this same effect.

Upon his return from the institution where his cure has been effected, the patient is quite likely to resume his former employment, feeling probably, especially if it be a trade, that it is the work he knows best, and therefore can most easily accomplish. Here is where he often makes his mistake, and where his further downfall is begun.

But finding suitable work unaided is a difficult matter for him, and therefore it hardly seems as if the responsibility for the mistake should rest upon him.

There are quite often a few interested people, who would be ready and able to find suitable employment for him, did they but know of his need. Sometimes the need is made known and the want filled, which is most fortunate and satisfactory.

There are, too, some of the anti-tuberculosis associations that have established employment bureaus for the "cured" tubercu-

lous patient, and in that way a certain number of these people are found suitable positions. But this is dealing with the matter in a small way, and why should it be dealt with in a small way, when it is just as important as that of sending the patient to the sanitarium to take the cure? Why allow the State or a private charity to go to the expense of treatment when the result obtained cannot be continued?

The State, the municipality, the county, private charities, and a few individuals, go to unbounded expense to bring about the cure or arrest of the disease in those afflicted. There is usually a certain system regulating the acceptance of an application and the admission of the applicant to the State institution. In this matter either the State, county or city are largely responsible, attending to the expense of transportation, the providing of proper and sufficient clothing, and various other details which are likely to arise.

It seems quite fitting that, in order to obtain the best results possible for the expenditure of the money, the department governing the admission of the patient to the institution might, upon his return, assume the responsibility of obtaining suitable employment for him and thus complete the good which, up to the time of his discharge, they have been carrying on.

Could not the poor department of the city or county in which the patient resides, and through whom doubtless he obtained his ad-

mission to the State institution, establish an employment bureau for returning patients, thus making it an official matter?

The curing or arresting of tuberculosis, even in one person, is anything but a small matter financially. Consider the expense, therefore to the State in its treatment of the thousands of patients constantly under its care.

If, after the patient is cured, he is able to find suitable employment, the carrying on of which is not going to be a detriment to his health, he would be able to support himself and his family and be no longer a charge upon the community. Is not this much better than allowing him to seek his own work, which is not likely to be advantageous to his health and will result within a short time in his being back where he was before treatment began? The expenditure of money upon both him and his family must be resumed, making an added expense to the State or community, and, in addition, making greater the possibility of infection which, in sending the patient away in the beginning, one was striving to prevent.

It seems to me that as long as the purpose of the tuberculosis campaign is to eventually eradicate the disease, every means to effectually accomplish this end should be undertaken. The carrying on of county or city employment bureaus for the "cured" or "arrested" tuberculous patients does not appear to me to be such an impracticable idea that their establishment might not be possible.

Journal of the Outdoor Life

OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS; THE KENTUCKY ANTI-TUBERCULOSIS ASSOCIATION; THE NEW HAVEN COUNTY ANTI-TUBERCULOSIS ASSOCIATION; ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS OF THE DISTRICT OF COLUMBIA; TROY, N. Y., TUBERCULOSIS RELIEF COMMITTEE.

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JOURNAL OF THE OUTDOOR LIFE PUBLISHING COMPANY

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Vice-President and Treasurer

WARWICK S. CARPENTER
Secretary and Managing Editor

The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It is entirely philanthropic, and is in no sense a money-making enterprise. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

PHTHISIOPHOBIA AGAIN

From the most unexpected directions come frequently cases of the old, unreasoning fear of tuberculosis. We confess, however, that we were quite unprepared for evidence that the spectre finds quarter in the ranks of the nursing profession itself. A correspondent writes: "When working in a little tuberculosis pavilion last year, in a city where there is a large nursing guild, I was surprised by the visiting guild passing a resolution refusing to visit tuberculosis patients, because one of their number had contracted the disease."

It is not the faithlessness to ideals and traditions which induces us to dignify this incident by editorial comment. One of the strongest characteristics of the

profession is its spirit of self-abnegation, of fidelity and sacrifice in the face of real danger. Any contrary indications are sporadic and trivial, usually also purely personal.

What concerns us is, that a large visiting guild can be found in which a majority are so fundamentally ignorant of the basic facts of tuberculosis infection. We can conceive of a stampede even of nurses before a disease which is acutely contagious, although we know of no such occurrences. But when the patient can readily be made harmless, as in tuberculosis, refusal of the nurse's ministrations can be founded upon nothing but lack of knowledge.

ADVERTISING QUACKS

We have commented before upon the advertising frauds who guarantee to cure any case of tuberculosis above the dia-

phragm provided only that payment is made in advance. The important element in this treatment is identically the

same as that which loosens the oracle in the "parlors" of the fortune tellers; the hand must first be crossed with silver.

We have just received a letter protesting against an advertisement of one of these quacks, which appeared recently in a German paper, the advertiser offering to effect a marvelous cure by a wonderful secret remedy. In the advertisement a testimonial is set forth at considerable length, telling of the terrible symptoms of a patient, presumably fictitious, who yielded readily to treatment.

This swindle is quite as old as the science of medicine itself. In one form or another we have always had the medical quack, and this particular one is no cleverer or more unscrupulous than others.

The letter transmitting the clipping was as follows:

"A great Charyty wood be, to stop such Athovtisement, such man can not be arrest, but the poor and ignorant patent, will go then has to pay for a mont ahed and then he sun finds out the swindel.

the newspapers will not wright against them as the are the best payers. how can it be don, put them a trap.

I can not give my name.

Truly of poor & sick."

With a despair almost equal to that of the deceived patient, we realize that the very victims whom these charlatans are seeking are those who are least able to judge for themselves and among whom tuberculosis is most rife.

THE UNSANITARY GROCER

The action of the Boston Association in sending a letter to four thousand dealers in food, calling their attention to the dangers of expectoration, seems particularly appropriate, when one understands just how little attention is given to cleanliness by those in whom it should be the greatest virtue. We remember the complaint of a correspondent who wrote us some time ago from one of the best known health resorts stating that he had found his grocer expectorating behind the counter. When he expostulated, the grocer replied that it was not upon the floor but down the cellar stairs. Most

groceries are poorly enough lighted at best, while certainly in the cellars, where much of the stock is kept, we cannot believe that germs will readily die. The grocer further explained that it did no harm anyway because he was chewing tobacco. It seems that this old belief about the germicidal value of tobacco refuses to go.

These are not pleasant facts, but facts they are nevertheless, as any observer can ascertain for himself. Accordingly we hope that the work of the Boston Association will be generally copied.

CORRESPONDENCE

To the Editor of the Journal of the Outdoor Life:

In the *New York Medical Journal* for July 2, 1910, Dr. E. C. Schroeder criticises severely certain paragraphs in the account of the Annual Meeting of the National Association for the Study and Prevention of Tuberculosis which appeared in the *JOURNAL OF THE OUTDOOR LIFE* for June, as well as a bulletin for the press containing an abstract of one of the papers presented to the Pathological Section of the Association and issued in advance of the meeting. The criticism refers to the reports of Dr. William H. Park's paper on "Types of Tubercle Bacilli as found in Human Tuberculosis and their Relative Importance" and charges that not only were statements of fact contained in the paper misrepresented, but that conclusions were attributed to the speaker which he had not drawn and which he did not hold.

As the reports in question emanated from the executive office of the National Association, and as they unquestionably contained errors, I beg the privilege of your columns to make certain corrections.

In the report of the meeting as it appeared in the *JOURNAL OF THE OUTDOOR LIFE* it was stated that "Dr. Park demonstrated from a careful study of over 400 cases of tuberculosis of all types chosen at random, that only 2½% of all tuberculosis in New York City comes from infected milk, butter or meat—that is, from bovine sources, etc."

Dr. Schroeder examines the data presented and shows that they would indicate not 2½% but more than 7%. This point, so far as the exact wording of the report is concerned, is well taken, the explanation of the discrepancy being that there was an inexact reproduction of a sentence in the advance abstract furnished by the author to the National Association in which it was stated that it was "estimated" that about 2½% of all tuberculosis in New York City is due to the bovine type of bacilli. Without working over the

data it was assumed that the figure in question was based upon the cases reported, although it is evident that other data contributed to the estimate mentioned.

With regard to the advance abstract in a bulletin furnished to the newspaper press in advance of the meeting, Dr. Schroeder criticises sharply and with justice certain statements as well as the tone of the bulletin. The bulletin in question stated, in addition to the inaccuracy mentioned above, that it was pointed out "that the significance of these conclusions will be to direct all the energy of the campaign against tuberculosis to combating the spread of this disease among human beings by preventing spitting, bad housing, overwork and other conditions bad for the health." It should be stated frankly that Dr. Park did not draw these conclusions, but confined himself entirely to a scientific discussion of the facts which he presented and with which alone he was dealing. He did not concern himself with inferences as to the practical bearing of his studies.

It is perfectly obvious that such a phrase as "direct all the energy of the campaign" is unjustifiable since a percentage of tuberculosis whether 2½, 7 or greater, is of sufficient importance to call for attention and determined action. In other words, it should be admitted frankly that the attribution of inferences to Dr. Park, as well as the somewhat polemic tone of the abstract, were out of place. In explanation it should be said that the newspaper abstract was prepared in a routine way by the Publicity Bureau of the National Association and owing to exceptional circumstances existing in the office at the time, was issued without being properly censored. It was simply a misplaced exercise of newspaper instinct for publicity and contained no ulterior motive whatever. Since public protest has been made it seems fitting that a public correction should be offered.

LIVINGSTON FARRAND,
Executive Secretary.

November 15, 1910.

NOTES AND NEWS

PUBLIC PROVISION FOR CONSUMPTIVES DOUBLED

Sixteen state sanatoria, twenty-eight county hospitals, and twenty-one municipal hospitals for tuberculosis have been erected and provided for since January 1, 1909.

Within the last two years the number of state institutions for tuberculosis has doubled, and the number of county and municipal institutions has increased from about thirty to eighty. The expenditures of public money for the treatment of tuberculosis also has more than doubled. Not less than \$3,000,000 of state money was appropriated for tuberculosis institutions in 1909, when forty-three legislatures met, and over \$600,000 in 1910, when only eleven legislatures were in session. The appropriations of counties and cities for tuberculosis hospitals and sanatoria in the last two years will aggregate fully \$2,500,000, bringing the total of official appropriations for tuberculosis hospitals up to over \$6,000,000 in the past two years.

In spite, however, of this good showing, not one-tenth of the public provision for tuberculosis that is needed has been made. More than 250,000 tuberculosis patients are constantly without proper institutional treatment.

TO EDUCATE ARCHITECTS AND GROCERS

The Boston Association for the Relief and Control of Tuberculosis has recently instigated two novel campaigns for education among groups which are not as a rule systematically approached.

One of the movements was to secure the co-operation of all the local architects in the matter of making provision in all dwelling houses and tenements planned by them for open air sleeping accommodations and also for plenty of fresh air ventilation. For this purpose the following letter was sent to 400 architects:

"In order to improve the health of our citizens the Boston Association for the Relief and Control of Tuberculosis is urging the great advantage of fresh air as a factor in health. To secure this in our modern life is often difficult.

"It occurs to us, however, that it is within the power of most architects, when their professional services are solicited, to encourage a life in the open with the maximum of time spent in the fresh air in the following directions:

Outdoor Sleeping.

"There is an increasing demand for open sleeping porches, balconies and roof spaces, and the possibilities of these health-giving devices should be brought to the attention of all those planning to build homes.

Noon Day Rests.

"In constructing stores, shops and mercantile establishments owners should be persuaded to provide open air accommodations for noon luncheons and recreation. The roof is the most available spot for these resting places, and is especially desirable in the congested sections of the city. Many flat roofs now in existence could easily be turned into such rests at little expense and with their wide commanding views they should be very popular as well as beneficial for several months in the year. These open air rests should eventually pay for themselves in the increased efficiency of the force using them.

Schools.

"Following close upon the remarkable results obtained in open air schools for anaemic and tuberculous children comes a demand for open air rooms, with at least one end that can be thrown entirely open. Here again in constructing new school buildings the roof may be used to advantage for both teaching and recreation purposes, removed as it is from the dusty, dirty and noisy streets.

"We hope if these suggestions meet with your approval that you will find the opportunity in the course of your profession or practice to help in putting them into effect.

"The association has for the use of all who are interested illustrations of a number of inexpensive devices to facilitate living out of doors.

"If you have done any work along this line will you not send us photographs of it to add to our collection."

The second campaign was for the distinct purpose of stopping promiscuous spitting in

places where provisions are sold. A letter was sent to 4,000 dealers in food in Boston calling to their attention the dangers of spitting. With the letter was sent an attractive card $4\frac{1}{2}$ by $7\frac{1}{4}$ inches bearing the legend: "Please do not spit! To do so may spread Disease." This card is designed to be hung on the wall, a desk or in some other conspicuous place where it may be seen by employees and customers. The letter in which the card is enclosed states that additional cards can be secured for $1\frac{1}{2}$ cents each.

SOUTHERN WAR ON TUBERCULOSIS

Tuberculosis will again be the theme of an All-South campaign, which opened in Jackson, Miss., on Oct. 25th, with the Exhibition of the National Association for the Study and Prevention of Tuberculosis under the direction of E. G. Routzahn.

Within the past two years every large city east of the Mississippi and south of the Ohio, except Mobile, has been stirred to activity in the war against consumption as a result of the crusade that has been carried on. In Georgia, North Carolina, Florida, Alabama and Virginia, State sanatoria for the treatment of tuberculosis have been erected or provided for. Local sanatoria providing for the treatment of hundreds of patients have been established in fourteen cities in seven different states. Special tuberculosis dispensaries for the instruction and relief of needy consumptives have been opened in nine cities in seven different states. Four state and forty-six local associations for the prevention of tuberculosis have been organized; three in Alabama; one in Florida; five in Georgia; seven in Kentucky; ten in North Carolina; nine in South Carolina; four in Tennessee; six in Virginia; and five in West Virginia.

At the beginning of the All-South campaign a little over two years ago there were not more than six centers in the South where the anti-tuberculosis movement had aroused any activity. In addition to the special anti-tuberculosis agencies enlisted in this work, health boards, women's clubs, churches, business associations, labor unions, and schools have all joined hands in a gigantic effort to reduce the large annual losses from consumption.

The southern campaign of the National Association for the Study and Prevention of Tuberculosis this coming year will be carried on particularly in Mississippi and Louisiana. Already some excellent work has been done in these states, and it is hoped to arouse every center of population by May, 1911.

The Western Exhibition of the National Association, under the direction of Mr. Walter L. Casper, has just completed a campaign in

Arkansas, and will be shown later in some of the far western states.

WISCONSIN SOCIETY'S REPORT

The annual report of the work of the Wisconsin Anti-Tuberculosis Association is contained in the latest issue of *The Crusader*, the monthly publication of the society. The report is a detailed accounting to the public, which by the purchase of Christmas stamps last December has made possible the active campaign against consumption in Wisconsin.

The summary shows that surveys or investigations were conducted with excellent results in nine cities: 650 unregistered cases were discovered and 900 living cases and deaths studied. The educational propaganda was furthered by weekly bulletins to the newspapers of Wisconsin; by the publication of *The Crusader*; by the distribution of 150,000 pieces of literature, 8,000 factory posters, 100,000 anti-spitting dodgers; 134 public lectures with a total attendance of nearly 65,000; the distribution of standard works in libraries, and in many other ways.

Under "General Campaigns" it is shown that the association started the campaign for an open-air school in Milwaukee, now definitely promised for next year; increased the registration of cases of consumption by circular letters to physicians and by arousing general interest; carried on a successful campaign for the abolition of the common drinking cup and is now engaged in a campaign against the dirty common roller towel in public places. Other campaigns were for better factory sanitation, for street sprinkling and oiling as health measures, and against the exposure of foodstuffs to filth.

To carry on the work during 1911, the association will sell Red Cross Christmas seals this year. It is hoped to duplicate or better the successful campaign in 1909, when 2,300,000 greetings were sold.

The printed report contains, besides many other excellent features, a chart graphically describing the Wisconsin plan of campaign. At the head of the campaign is the State association; next in order are the local and composite surveys of conditions; then comes the enlistment of all sorts of civic and social community interests, followed by the Central organization. The principal problems of the Central organization are summed up under the headings: Relief, Education, Funds, Civic Measures, Publicity, Political Power, and Permanent and Periodic Campaigns.

Copies of the annual report will be sent free to any one interested upon application to the offices at Milwaukee.

NEWS OF OPEN AIR SCHOOLS

The Board of Education of Newark, N. J., has appropriated \$1,000 for an open air school to be conducted in co-operation with the anti-tuberculosis association. Open air class rooms will be built also in all new school buildings to be erected.

The Anti-Tuberculosis Association of the Oranges will conduct an open air school this winter.

The new open air school at Albany, N. Y., has been opened with great success.

After one week's experiment the Montclair, N. J., Board of Education has been convinced of the value of their open air school and is planning a considerable extension of the work.

The trustees of the Boston Consumptives Hospital Department have rescinded their action taken some time ago with reference to closing the open air school, and have decided to keep the school open.

MICHIGAN'S WORK

The work of the Michigan Association for the Prevention and Relief of Tuberculosis will be discussed at the fourth annual meeting to be held in Ann Arbor December 9th. Two of the leading topics of discussions will be "A State Museum of Preventive Medicine," and "Anti-Spitting Laws and Their Enforcement." The association is organizing new branches in all parts of the State. A new county hospital is being built at Marquette and an appropriation for another at Sault Ste. Marie has been made.

NEW HOSPITAL IN GRAND RAPIDS

After considering the matter for months, during which time all sorts of protests were heard, the Board of Health of Grand Rapids, Mich., has finally decided that the new diphtheria hospital shall be converted into an infirmary for the care of the tuberculosis patients now at the sanatorium. During the year or more in which the building has been open it has been used for the accommodation of but one patient.

The plan now is to make it serve as an infirmary for the ensuing winter and then it is hoped to be able to secure a less expensive building for the purpose next year.

PHILADELPHIA'S JEWISH INSTITUTE

The Jewish Consumptive Institute of Philadelphia, organized by the Denver Consumptive Aid Association for the aid of the needy Jewish consumptives, has recently opened a new building at 406 Wharton street. The institute now operates in this building two clinics for tuberculosis patients, a laboratory, a drug store, and accommodations are being fitted up for two wards for bed patients. The building has a yard in the rear and sun parlors have also been added. The work of the institute will be to provide treatment for indigent Jewish consumptives either in Philadelphia institu-

tions, at home, or elsewhere. The institute is supported by annual dues of about 3,000 members and also by contributions of Jewish beneficiary societies.

A Jewish sanatorium is conducted at Eaglesville but has no connection with the institute.

CO-ORDINATION OF WORK IN NEW HAVEN

At a recent meeting in New Haven, Conn., a committee was appointed to consider and report a plan for the co-ordination of the work of all organizations doing anti-tuberculosis work in that city and county, and for raising funds for the work. The anonymous bequest of \$300,000 to the New Haven Hospital, it was announced will be used chiefly to provide care for advanced cases of tuberculosis.

NO PLACE IN LINCOLN

Several months ago the city council of Lincoln, Nebraska, at the instance of a medical member of that body passed a sweeping ordinance prohibiting the conducting of "any open air camp, or open air house, place or sanatorium," for the care of tuberculosis patients within the city limits. The only exception in the ordinance was the permission to have sleeping porches on houses in which the tuberculosis patient lived. It is reported that recently because of this ordinance, the medical authorities of the city refused to place an advanced case of tuberculosis, in any of the general hospitals of the city. Thus Lincoln is not only without a place for its consumptives but is also unable to provide such a place.

TUBERCULOSIS CAMPAIGN MEMORIAL TO KING

The Welsh national memorial to King Edward was definitely decided upon at a conference at Shrewsbury recently, convened by the Lord Mayor of Cardiff. On the proposal of Mr. David Davies, M. P. for Montgomeryshire it was resolved to institute a national campaign against tuberculosis in Wales with the establishment of a national sanatorium.

Towards the memorial Mr. David Davies himself has contributed £25,000, and there have been two anonymous donations of £50,000 each. In addition large sums have been contributed by coal-owners and other wealthy Welshmen, the total sum in hand at last accounts being £140,000. About £300,000 will be needed to carry on the campaign successfully according to the plans of the leaders.

DUTCH TUBERCULOSIS REPORT

The first volume of an extensive work on tuberculosis has just been published in Dutch by Dr. W. J. Van Gorkom, secretary of the Netherlands Association. The book will contain articles on various phases of the tuberculosis problem by eminent Dutch tuberculosis specialists.

NOTES FROM THE FIELD

A successful anti-tuberculosis association with a membership of 800 has been formed at Springfield, Ill.

The Kensington Dispensary of Philadelphia reports 6,442 visits of tuberculosis patients last year, the treatment of 365 new patients, and 2,423 visits to homes of patients.

The use of the school buildings in St. Joseph, Mo., has been granted to the Buchanan County Society for the Relief and Prevention of Tuberculosis to conduct a series of lectures this winter.

The Paducah, Ky., Tuberculosis Sanitarium is practically completed, and with the placing of the furniture, already purchased a few minor details only remain before the main building can be occupied.

One of the sessions of the eleventh annual Missouri State Conference of Charities and Corrections held at Chillicothe, Nov. 10th, was devoted to the discussion of tuberculosis.

At the request of the Minnesota Association for the Prevention and Relief of Tuberculosis a bill will be introduced at the next session of the legislature asking for a state subsidy to assist in the establishment of county hospitals for the treatment and care of persons suffering from consumption.

The West Virginia Fraternal Association, comprising representatives of all the leading fraternal orders of that state, adopted at their recent meeting a resolution calling on the next legislature, which meets in January, to erect a state sanatorium.

EXCEPTIONAL PALATABILITY

IS ONE OF THE
DISTINCTIVE
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The chief factors concerned in the exceptional palatability of Hydroleine are (a) the purity and freshness of the oil, (b) the masking of that raw taste which even the purest cod-liver oil retains till perfectly emulsified, (c) its delicate flavoring, and (d) its freedom from medicinal admixtures. It has a smooth, distinctive, nutty flavor that children like. Its small globules are a guaranty of its marked digestibility. Sold by druggists.

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115 Fulton St., New York

Sample with literature sent *gratis* to any physician on request

When dealing with Advertisers please mention JOURNAL OF THE OUTDOOR LIFE.

A recent carnival in Seattle netted the King County Anti-Tuberculosis Association about \$1,500.

Nearly \$10,000 was received by the Thalian Anti-Tuberculosis Society at a recent tag day in Toledo, O.

The annual meeting of the Virginia Anti-Tuberculosis Association will be held on Dec. 15th and 16th at Richmond.

The fourteenth annual report of the Hampton Negro Conference contains interesting papers on anti-tuberculosis work among the negroes.

The Committee on Tuberculosis of the Hudson County, N. J., Federation of Women's Clubs is about to open a special tuberculosis dispensary in Jersey City.

The new municipal tuberculosis hospital at Lawrence, Mass., was opened on October 24. The hospital has cost about \$15,000 and accommodates thirty patients.

The central Maine Association for the Prevention of Tuberculosis has recently opened a day camp and a dispensary and is carrying on an active educational campaign.

The Anti-Tuberculosis Committee of One Hundred of Winston-Salem, N. C., has distributed to all the school children in the city a text book on tuberculosis.

Work has been begun on a new \$25,000 tuberculosis hospital being built near Colorado Springs by the Associated Charities of that city. The hospital will accommodate about twenty-five patients.

The county officials of Milwaukee, Wis., have passed a resolution inviting the Milwaukee Sanatorium Association to turn over the Blue Mound Sanatorium to them to be conducted as a county tuberculosis hospital.

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Has a most
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flavor.
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and
healthful.
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food
beverage.

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State Sanatorium, Md.



AN EPISCOPAL CHURCH HOME FOR REFINED MEN AND WOMEN

who may care to seek renewed health in Colorado, and prefer the Home Life to that of the sanitarium. Fifteen years of experience in caring for consumptives, over eighty-seven hundred having been cared for. Built on the highest ground overlooking Denver; extended view of Mountains and Plains; perfect ventilation; artesian water; every comfort, care and consideration given that is possible. Includes Home, Hospital, Arts and Crafts Workshop, Chapel, Out-door Life opportunities—everything one can need or desire. Best of medical direction.

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WHY YOU

Should use Red Cross Christmas Seals on your Holiday Letters and Packages.

ONE
CENT
EACH



ONE
CENT
EACH

BECAUSE one death in every ten in your locality
is caused by tuberculosis.

BECAUSE every seal you buy will be used to fight
consumption in your community.

BECAUSE tuberculosis cannot be stamped out
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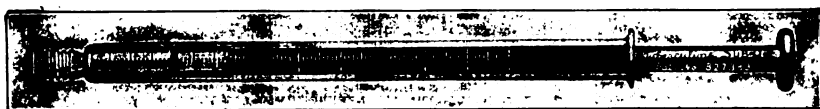
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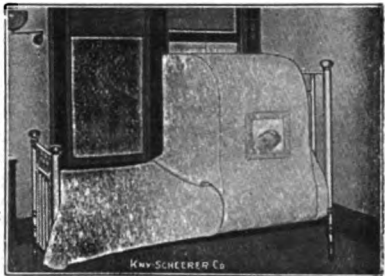
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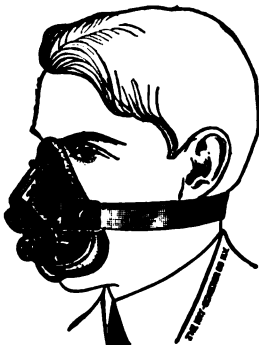
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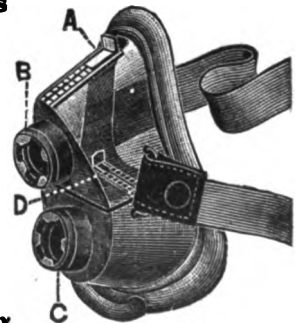
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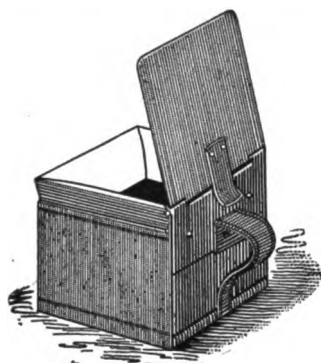
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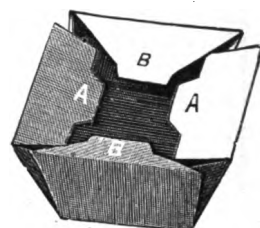


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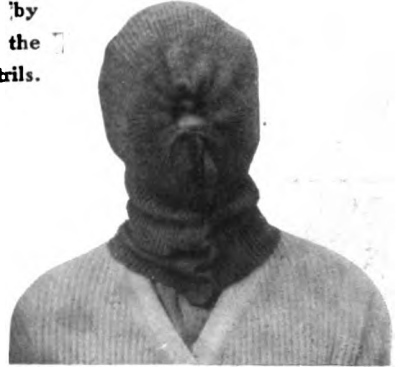
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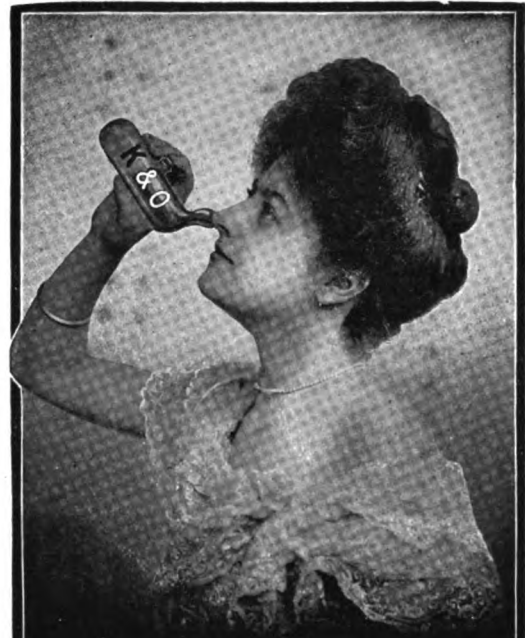
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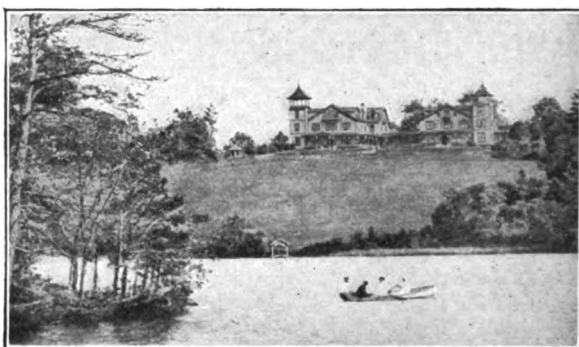
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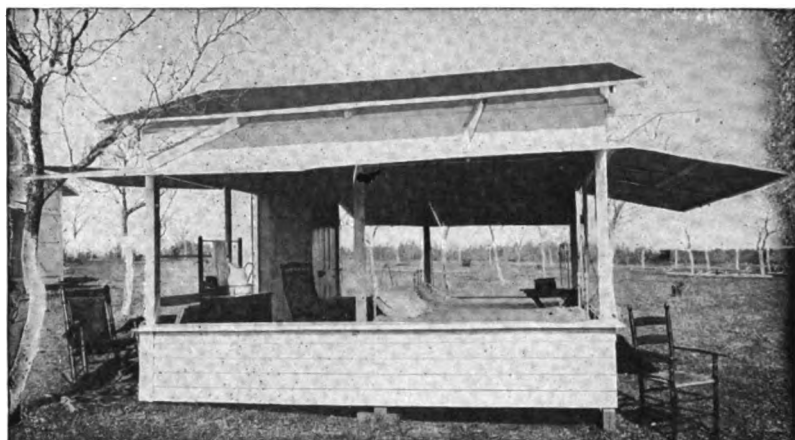
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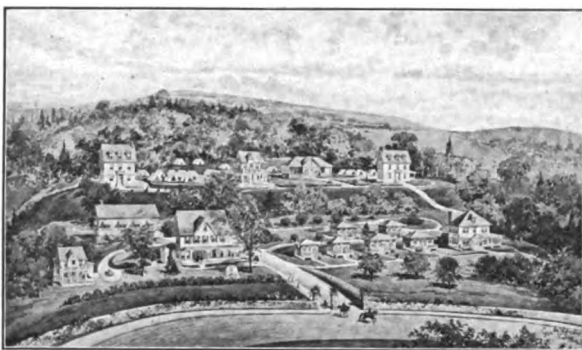
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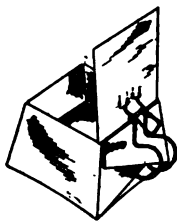
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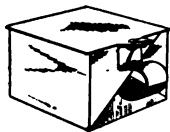
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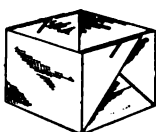
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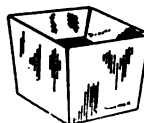
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